CONSTRUCTION NEWS

Supplem   to ENGINEERING NEWS. New York, April 6, 1911.

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RAILWAYS.

(+ Denotes a contract awarded.)

VERMONT.—Grand Trunk Ry.—Bids are now being asked for the first section of the Providence extension. This section is about 25 miles long, extending from the Central Vermont tracks at Windsor to the Rutland Railroad yard at Bellows Falls, Vt. The second section will be from Bellows Falls, Vt., to Brattleboro, Vt., about 25 miles. This line will leave the Rutland R. R. yards in Bellows Falls and continue on down the west bank of the Connecticut River through the towns of Westminster, Putney and Dummerston, entering on the tracks of the West River Railroad, which is a subsidiary branch of the Grand Trunk lines, and thus entering Brattleboro. H. G. Kelley, Montreal, Que., is Ch. Engr.

+NORTH CAROLINA.—Piedmont & Northern Ry.—The general contractors, W. J. Oliver & Co., Knoxville, Tenn., have awarded the following sub-contracts: KLINE & CO., Charlotte, N. C., were awarded the contract for all the wooden trestle work between Greenwood and Greenville, the contract being let for some $50,000. HUETT & CO., of Marion, N. C., were awarded the contract for the concrete work between Piedmont and Williamston. For the grading of the first five miles out of Greenville, to J. L. HUNTICUTT, Chattanooga. For the construction of the first four miles of the line out from Greenwood, to W. L. MARSHALL & CO., Knoxville, Tenn. For the construction of the next five miles out of Greenwood, to McCORMICK & CO., Evansville, Ind.

Tennessee & North Carolina R. R.—This lumber road will be extended to Canton and the Pigeon River R. R. will be extended from Canton to Sunburst. A. J. McMahon, Newport, Tenn., is Supt. & Audr.

TENNESSEE.—New Orleans, Mobile & Chicago R. R.—A plan is on foot to extend this road from Middleton to Jackson, about 70 miles. W. F. Owen, Mobile, Ala., is Vice-Pres. & Gen. Mgr.

OHIO.—Cincinnati, Hamilton & Dayton Ry. Co.—Press advices are to the effect that this company intends to double track its line on the Bowling Green and North Baltimore Division between North Baltimore and Toutogany, 19 miles, and on the main line from Toutogany and Toledo, 10 miles. A. C. Everham, Toledo, Ohio, is Res. Engr.

+MICHIGAN.—Pere Marquette R. R.—The double tracking of the line from Toledo, Ohio, to Detroit, Mich., will be undertaken this year. The contract for the work on the section between Alexis, at the outskirts of Toledo, to Romulus, about 40 miles, has been awarded to W. E. TRENCH & CO., Detroit, Mich.

+ARKANSAS, KANSAS CITY & MEMPHIS R. R.—The contract to build from Rogers, south to Fayetteville, about 30 miles, has been awarded to W. R. FELKER CONSTRUCTION CO. G. D. Locke Rogers, is Pres.

MISSOURI.—Kansas City, Clay County & St. Joseph R. R.—This new company has been incorporated to construct a railway from Kansas City through Clay, Pierce and Buchanan Counties to St. Joseph, with a branch line to Excelsior Springs, a distance of some 72 miles. The directors are: Ward S. Arnold, of Chicago; George D. Beardsley, W. A. Medill, George Townsend and U. S. Grant Peabody, all of Kansas City.

+TEXAS.—Kansas City, Mexico & Orient R. R.—The contract for grading 20 miles of line between Mertzon and Fort Stockton has been awarded to ROACH & STANSELL, San Angelo, Tex.

WASHINGTON.—Springdale & Long Lake R. R.—A new line is projected from Springdale, Stevens County, Wash., to Kerby, Spokane County, on the Spokane River, about 23 miles. F. T. Griffith, F. J. Lonergan and J. F. Phelan, Portland, Ore., are incorporators.

+ONTARIO.—Quebec & Saguenay Ry.—The contract for this new line has been awarded to M. J. O'BRIEN, Ottawa. The road will run from St. Joachim, Quebec, to Murray Bay, along the north shore of the St. Lawrence, about 40 miles. St. Joachim is the terminal of the electric road operated by the Quebec Light, Heat & Power Co. Murray Bay is about 70 miles below Quebec. It can only be reached by water.

ALBERTA.—Canadian Northwestern.—Surveys are being made and tenders will be called shortly for the construction of this line, which will run from Edmonton, Alta., to the Peace River Country. J. Carlyle Moore, Red Deer, Alta., is in charge of the work.

+Grand Trunk Pacific.—The company announces the awarding of the following contracts: J. D. McARTHUR CO., Winnipeg, Man., Calgary branch, 143 miles; Battleford branch, 59 miles; Melville-Regina branch, 68 miles; Alberta coal branch, 67 miles; Regina-Boundary branch, 110 miles; Moosejaw branch, 49 miles; Prince Albert branch, 72 miles; Biggar Calgary branch, 50 miles; to FOLEY, WELCH & STEWART, St. Paul, Minn., 265 miles of grading on the main line. The total contract price was approximately $17,000,000.

Grand Trunk Pacific.—Surveys are being made for a branch to run due south from Lethbridge, Alta., to the international boundary at Couts, Alta. It is proposed to build from that point to Minneapolis. E. J. Chamberlain, Winnipeg, Man., is Gen. Mgr.

ELECTRIC RAILWAYS.

WATERBURY, CONN.—The Connecticut Co. has petitioned the City Boards for permission to lay a single-track line through Homer St. and Thomaston Ave. The construction of this line will necessitate the rebuilding of the bridge over Hancock Brook on Thomaston Ave., probably of reinforced concrete.

Permission to construct a double-track line through Meadow St., from West Main St. to Bank St., and a single-track line through Grand St., from Bank St. to South Main St., has been granted to the above company. C. C. Elwell, New Haven, is Engr.

AUBURN, N. Y.—A franchise has been granted to the Auburn & Syracuse Electric R. R. Co. to double track the line from Auburn to Skaneateles. T. H. Mather, Syracuse, is Ch. Engr.

NEW ROCHELLE, N. Y.—Receiver J. Addison Young, of the Westchester Electric R. R. Co., announces that instead of double tracking North Ave., from Garden St. to Mayflower Ave., he will extend the line 3,000 ft. further. Noted March 2.

GERMANTOWN, PA.—The Rapid Transit Co. contemplates building a trolley line between Germantown and Roxborough, by way of the new Walnut Lane bridge. The proposed route is by way of Chelten Ave. to Wayne Ave., thence through Johnson St. to the Walnut Lane bridge. The Business Men's Association here is interested.

TARENTUM, PA.—The State Department at Harrisburg has granted a charter to the Tarentum, Brackenridge & Butler St. Ry. Co., giving the company the right to build two miles of line. The officers are: McKinstry Griffith, Pres.; Otto Sontam, J. M. Griffith, C. H. Battey and F. Flaggenmeir, Tarentum; C. N. Schad, Saxonburg, and J. C. Smith, Brackenridge, are the Directors. While the charter calls for only two miles of road, the company is a part of a new system which contemplates the construction of a line which will connect Butler, Pittsburg, Tarentum, Natrona, Brackenridge, Evans City and other towns in the Butler district. John Schaffner, of Butler, has a contract for the construction of a section of what is believed to be the same road, his contract being in the vicinity of Evans City, where work was started last fall and suspended when the bad weather set in. Noted March 30.

+ATLANTA, GA.—The contract for grading the first section of the Atlanta & Carolina R. R., between Atlanta and Conyers, has been let to ADAMS & STURM, Columbus, Ohio, and work will begin within a month. The right-of-way has been secured from Atlanta to Augusta, and both cities have granted franchises to pass through the streets. The officers and directors are: M. Mason, Pres. and Gen. Mgr.; T. R. Edmonds, Secy.; J. Frank Beck, W. E. Beekham, C. W. McClure, Dr. H. L. Wilson, John Keller, T. J. Flake, A. J. Almand, R. W. Tucker, J. C. Broadnax, J. J. Nunnally, J. W. Hinton, R. L. Calloway and I. T. Irvin, Directors.

+AUGUSTA, GA.—The contracts have been awarded to J. G. WHITE & CO., 43 Exchange Pl., New York, by the Augusta Ry. & Electric Co., and the Augusta-Aiken Ry. Co. for extension and improvements to their power-houses and systems. Approximate cost, $500,000.

+ALLIANCE, OHIO.—The grading and concrete contract for the new line to be built by the Cleveland, Alliance & Mahoning Valley R. R. Co., from Alliance to Ravenna, about 19 miles, has been awarded to J. C. CARLAND & CO., Chicago, Ill. C. R. Morley, Cleveland, Ohio, is Pres. Noted Jan. 19.

COLUMBUS, OHIO.—The Hills & Dales Ry. Co., of Van Buren Township, Montgomery County, Ohio, has been incorporated to build and operate an electric line between two towns in that township. The incorporators are: William Sloop, Edwin P. Matthews, Clayton O. Shupert, Albert C. Rice and O. J. Emrick.

HOBART, IND.—The Town Board has granted a 50-year franchise to U. P. Hord and others, who are organizing a company to build an interurban railway between Hobart and Gary.

INDIANAPOLIS, IND.—The Indianapolis & Seymour Traction Co., recently organized, contemplates the building of an electric railway between Indianapolis and Seymour. M. L. Clawson, of Indianapolis; J. B. Dill, A. G. Kelly and W. T. Todd, of Greenwood, Ind., are interested.

DETROIT, MICH.—The Common Council has approved the plans of Mayor Thompson and the Detroit United R. R. for extensions. The company contemplates spending about $2,000,000. Work will be started as soon as permits are obtained. George H. Brooks, 12 Woodward Ave., Detroit, is Gen. Mgr.

BUHL, MINN.—The Mesaba Electric R. R. Co. proposes to connect all the range towns by trolley and is seeking a right-of-way through Buhl. A. C. Gillette is one of the representatives of the company. The road will enter Buhl on Pennsylvania Ave., running north on State St. to Jones Ave., then taking the county road to the Whiteside, thence to Kinney and on to Mountain Iron and Virginia.

HASTINGS, MINN.—The City Council has granted a franchise to the St. Paul Ry. Promotion Co. to construct its line through the city streets. W. L. Sonntag is Gen. Mgr., 709 Metropolitan Opera House Bldg., St. Paul, Minn.

BIGFORK, MONT.—About $100,000 has been subscribed for the construction of an electric railway of about 55 miles on the Flathead Reservation.

FRISTOE, MO.—The construction of an electric railway from Warsaw to Springfield by way of Cross Timbers is contemplated. E. E. Trippe, Fristoe, and B. Orlando Taylor, Bosworth, are interested.

SPRINGFIELD, MO.—Preliminary survey of the Springfield & Western R. R., the proposed interurban line between Springfield and Carthage, has just been completed. The route is by way of Paris Springs, Mt. Vernon, Hoberg, Freistatt, Monett, Peirce City, Wentworth and Diamond, about 90 miles. H. D. Mackay is Pres., and M. M. Hollenback is Ch. Engr., both of Springfield, Mo.

BROWNSVILLE, TEX.—The Brownsville & Gulf Ry. Co. has applied to the City Council for a franchise to operate cars over its line. It is announced that the road will be reconstructed and that a regular passenger service will be established through the city and across the new international bridge over the Rio Grande to Matamoros, Mex. Under the franchise that has been requested electricity may also be used for its operation, and it is understood that the line will be electrically equipped later on. This company is owned by the St. Louis, Brownsville & Mexico R. R. Co., with which it connects.

HILLSBORO, TEX.—The Bd. of Trade has taken up the matter of promoting the construction of an interurban electric railway between Dallas and Hillsboro. It is reported that the line to be built by the Dallas Street Ry., noted March 30 in our columns, from Dallas to Waxahachie, may be extended to this place.

HOUSTON, TEX.—The San Leon Terminal R. R. Co. will construct an interurban railway to run from the Bay front at the suburb of San Leon to Dickinson, where it will connect with the Houston-Galveston Interurban R. R. The proposed line will be about eight miles long and the contract for the construction of the first 3½ miles will be awarded before April 15, it is stated. Gasoline motor cars will be operated temporarily, the present plans being to electrify the line in the early part of next year.

GLOBE, ARIZ.—One of the most extensive underground electric railway systems in the Southwest is to be installed in the mines of the Old Dominion Copper Co. here. It will be equipped with motor ore cars and used for the purpose of hauling ore from different points in the mine to the surface.

SEATTLE, WASH.—George W. H. White, of Seattle, Wash., has made application to the Kings County Bd. of Comrs. for franchise to construct and maintain an electric railway.

PORTLAND, ORE.—Word has been received by F. W. Waters, representative of the Welch interests in this city, that A. Welch states that the Portland, Eugene & Eastern Ry. Co. has purchased the Southern Pacific tracks on Front St. and will electrify them at once.

LONGBEACH, CAL.—The City Council has granted a franchise to H. C. Pike for the construction of a scenic electric railway on Pike St. Work will begin in the near future. Approximate cost, $80,000.

OAKLAND, CAL.—The Oakland, Antioch & Eastern Ry. Co. has been incorporated and will build an electric railroad from Oakland to Stockton as soon as possible. The line from Oakland to Antioch has been completed. For the purpose of extending the railroad to Stockton the old Antioch & Oakland Co. has been reorganized and incorporated on a $10,000,000 basis. The railroad will be 80 miles long when completed and will give direct communication between San Francisco Bay and the center of the San Joaquin Valley. S. L. Naphtaly is Treas., and one of the backers. The directors are: A. W. Maltby, Concord; Lawrence Arnstein, San Francisco; John R. Selby, San Francisco, and A. J. Krutmeyer, San Francisco. The route is to be from Oakland along the most convenient direct line in a northeasterly direction to Antioch and thence easterly to Stockton, passing through Alameda, Contra Costa and San Joaquin Counties.

WILLOW, CAL.—Charles T. Donohue and associates are organizing a company to construct a railway connecting Red Bluff, Woodland, Willow, Colusa, Orland, Corning and Redding. Estimated cost, $2,200,000. The company contemplates incorporating for $3,000,000.

TORONTO, ONT.—The Special Committee of the City Council on Subway Railroads has instructed the City Engineer to prepare plans and specifications for the construction of a subway under Yonge St., from the Union Station to St. Clair Ave., three miles. Bids will be asked from contractors on these specifications. For the proposed municipal electric railway on Bathurst St. the city is purchasing $50,000 worth of plant and will do the work by day labor. Controller H. C. Hocken is Chn. and C. H. Rust is City Engr.

LIGHT AND POWER PLANTS.

*(*Denotes that this work is advertised in Engineering News.)*

PORTSMOUTH, N. H.—The bids opened April 1 for the installation of a hot-water heating system and power plant extensions at the U. S. Navy Yard here, and noted March 9, are as follows: Noel Construction Co., Baltimore, Md., (a) $45,149, (b) $7,500, (c) $10,500, (d) $1,100; Thomas E. Gildea, 119 W. Willow St., Syracuse, N. Y., (a) $40,574, (b) $7,534, (c) $6,800, (d) $1,200; Newport Contracting & Engineering Co., Inc., Silsby Bldg., Newport News, Va., (a) $37,598, (b) $5,968, (c) $7,154, (d) $1,120; Walworth Manufacturing Co., 132 Federal St., Boston, Mass., (a) $36,560, (b) $5,866, (c) $7,358, (d) $1,526; D'Olier Engineering Co., 1421 Chestnut St., Philadelphia, (a) $38,470, (b) $6,873, (c) $1,525, (d) $1,075; J. W. Danforth Co., 72 Ellicott St., Buffalo, N. Y., (a) $35,874, (b) $5,600, (c) $7,200, (d) $1,131; Evans, Almirall & Co., 281 Water St., New York, N. Y., (a) $41,400, (b) $6,800, (c) $8,865, (d) $1,925.

*FORT TOTTEN, N. Y.—Bids will be received for installation of a heating plant in Barracks Nos. 107, 108 and 110 until 2 p. m., May 3. Plans and specifications may be seen at the office of the Chief Quartermaster, Governor's Island, N. Y. H., or at Fort Totten.

NEW YORK, N. Y.—Bids will be received by John W. Brannan, Pres. of the Bd. of Trustees in the Staff Room of Bellevue Hospital, until 3 p. m., April 11, for providing all labor and materials necessary for the reconstruction of the electric light system at Gouverneur Hospital, at Gouverneur Slip, 621 Water St., New York, N. Y. Blank forms may be obtained at the office of the Contract Clk., 415 East 26th St.

Bids will be received by the Pres. of the Borough of Manhattan at the City Hall, Room 14, until 2 p. m., April 13, for miscellaneous electrical supplies.

UTICA, N. Y.—Bids will be received by D. J. Kelly, Clk., Bd. of School Comrs., until April 11, for combination gas and electric fixtures to be installed at the John E. Brandegee School.

YONKERS, N. Y.—Bids will be received by John H. Claxton, Secy. Bd. of Education, until April 14 for specified power transmission apparatus for the Saunders Trades School, now being built.

Bids will also be received until May 1 for other specified machinery for the school. The cost of the whole will be about $20,000. George Bullock, Robert G. Jackson and James J. Fee are a special committee of the Board in charge of purchasing the material.

DARBY, PA.—Bids have been received by A. B. Montgomery, 314 South Fifth St., Chn. Lighting Com., for lighting the city streets for a period of one, three or five years by either gas or electricity.

CLAYTON, DEL.—A bill has been passed by the State Legislature authorizing the City of Delaware to call an election to vote on a $40,000 bond issue for the construction of a municipal lighting plant.

BALTIMORE, MD.—Bids are asked until 11 a. m., April, 12, for furnishing for use of Electrical Commission, in accordance with specifications issued by chief engineer of said commission, the following materials: 1,000,000 duct ft. of vitrified tile conduit; 200,000 ft. of special duct pipe, including bends. Raleigh C. Thomas is Ch. Engr., City Hall.

+The Baltimore Gas Appliance & Mfg. Co., of which H. W. Hunter is Pres., has awarded the contract to the FIDELITY CONSTRUCTION CO., 64 Knickerbocker Bldg., Baltimore, to remodel part of former gas plant at Bayard and Wicomico Sts.

WASHINGTON, D. C.—Bids will be received at the office of James Knox Taylor, Supervising Arch., Treasury Department, Washington, D. C., until 2 p. m., May 1, for supplying and installing lighting fixtures in the U. S. buildings at Columbus, Neb.; Fort Dodge, Iowa; Hattiesburg, Miss.; Kansas City, Kan.; Lander, Wyo.; Helena, Ark.; Meridian, Miss., and Sacramento, Cal. Plans and specifications, copies of which may be obtained at the office of the Supervising Arch.

Bids will be received at the office of the Chief Signal Officer, Washington, D. C., until April 16 for furnishing under proposal No. 514, 170 miles of single-conductor intermediate cable No. 65, specification No. 520-A, to be made in two lengths of 57 miles each and one length of 56 miles. Captain A. S. Cowan is disbursing officer.

The District Commissioners, District Bldg., Washington, D. C., are asking prices on plenum system of heating for the $230,000 teachers' training school. A fan to furnish 90,000 cu. ft. of air per minute will be needed, also two boilers and engine for fan, tempering and heating coils and thermostatic heat regulators.

+WILLIAMSBURG, VA.—The Trustees of the William and Mary College have awarded the contract to R. H. RICHARDSON & SON.

Hampton, Va., to erect proposed power-house. The building will be brick and will cost $5,000.

ANDREWS, N. C.—See item under Water Supply-Irrigation.

✚TALLULAH FALLS, GA.—The Georgia Power Co. has awarded to B. H. HARDAWAY, Columbus, Ga., the contract for a dam to be built across the Tallulah River. C. O. Lenz, 71 Broadway, New York, N. Y., is Engr. Noted Feb. 23.

FT. MEADE, FLA.—D. O. Rogers, of Wauchula, Fla., is reported to be promoting the organization of a company to construct and operate an electric light, heat and power plant. Capital, about $50,000.

JACKSONVILLE, FLA.—Bids have been received by W. M. Bostwick, Jr., Chn. of the Bd. of Trustees, Water-Works and Improvement Bonds, for furnishing and installing two turbo generators and exciters, one feed-water heater, two pumps and necessary appurtenances.

Bids will also be received as above until April 18 for six transformers and a chimney complete. The Scofield Engineering Co., Philadelphia, Pa., has charge of the engineering work.

DOTHAN, ALA.—See item under Water Supply-Irrigation.

TROY, ALA.—Bids will be received by A. B. Campbell, Supt. electric and water departments, until April 17, for one stationary steam engine, 400-HP., 150 lbs. initial pressure, one electric generator, 250 K. V. A., 60 cycles, three-phase, 2,300 volts; pump, capacity not less than 500 gallons per minute against 200 pounds working pressure; motor to drive above pump, 60 cycles, three-phase; transmission line material for three-phase line 3½ miles long.

COLUMBUS, OHIO.—See item under Miscellaneous Contracts.—Elevators, Columbus, Ohio.

MARION, IND.—A company of Indianapolis men, headed by George Summers, Supt. of the Citizens Gas Co., has asked for a franchise to build and operate a gas and by-products plant in this city.

RICHMOND, IND.—The City Council is asking bids for the installation of two new engines, and other machinery and equipment in the municipal electric light plant.

✚SOUTH BEND, IND.—The cement work contract has been awarded to JAMES E. SOUTHARD & CO., Michigan City, Ind., by the Northern Ohio Power Co., Akron, Ohio. The contract calls for foundations, walls, floors, engine beds, roofs and a dam across the Cuyahoga River. Work will begin about April 1.

CHICAGO, ILL.—The International Harvester Co. of America, Harvester Bldg., Chicago, is considering the erection of a power plant for their Weber Works. C. A. Hanson, 601 West 81st St., is Supt. of the Weber Works.

✚CHICAGO, ILL.—The West Chicago Park Comrs. have awarded the contract for furnishing and installing electric cables and connecting cables with electric substation in Garfield Park to the SAFETY INSULATED WIRE & CABLE CO., at $11,898.

LOCKPORT, ILL.—The contracts for a high-power generator and a high-tension transformer to be installed in the main controlling work here have been awarded, according to press reports, to the CROCKER-WHEELER CO., Ampere, N. J., at $24,443. The W. A. Jackson Co. also bid $24,443. The bids received for the transformer were as follows: The Western Electric Co., bid of $15,800 was irregular; the Crocker-Wheeler Co., $16,000; the Moloney Electric Co., $17,000, and W. A. Jackson Co., $17,492.

YORKVILLE, ILL.—The Fox River Electric Development Co., Yorkville, Ill., will build a hydro electric plant this summer. Bids will be received about May 1 for four turbines and generators, 22½ miles of transmission line, 227 ft. of masonry dam and a power station, 90 x 25 ft. Estimated cost, $75,000. Red S. Simpson is Pres., Hugh Palmer, Yorkville, Ill., is the Engr.-in-Charge, and H. B. Hallett, Aurora, Ill., Consult. Engr.

✚APPLETON, WIS.—The Bd. Pub. Wks. has awarded the contract for electrical power machinery for Lake St. drawbridge to APPLETON MACHINE CO., and contract for fixtures, appurtenances, etc., to LANBSTADT & MEYER CO.

BARABOO, WIS.—The Baraboo Lighting Co. has commissioned Chamberlain & Howell, Engrs., Chicago, Ill., to prepare plans and specifications for a new plant to cost about $35,000. Noted March 2.

WEBSTER CITY, IOWA.—We are officially advised that no bids were received for furnishing equipment and material for improvements to the municipal electric light and water-works system. Noted March 23.

CHAPPELL, NEB.—See item under Water Supply—Irrigation.

FT. OMAHA (Omaha post-office), NEB.—Bids will be received by Capt. W. L. Clarke, Constr. Q. M., until 11 a. m., April 10, for the construction of an extension to electric lighting system.

JEFFERSON CITY, MO.—Bids will be received at the office of James Knox Taylor, Supervising Arch., Treasury Department, Washington, D. C., until 3 p. m. on April 25 for a conduit and wiring and gas piping systems at the U. S. post-office and court-house at Jefferson City, Mo. Plans and specifications may be had at the office of the Supervising Arch., or the Custodian, Jefferson City. James Knox Taylor is Supervising Arch.

✚MONTICELLO, ARK.—The contract has been awarded to the BALL ENGINE CO., Erie, Pa., for the equipment of the power plant at $11,725. OGLESBY BROS., Monticello, has been awarded the contract for the building. Noted March 2.

✚HOUSTON, TEX.—The William E. Rice Institute has awarded contracts for the electric installation in the administration building, the mechanical laboratory and power plant to the NEWBERY ELECTRIC CO., St. Louis, at $18,960.

ALTO, TEX.—Plans have been approved by L. S. Atkins, of Center, Tex., for the erection of buildings and installation of machinery for an electric light and ice plant at this place.

✚SUNSET, TEX.—THE LONE STAR GAS CO. has entered into a contract with the City Council to light the main streets here with natural gas for a period of two years.

BOSWELL, OKLA.—At a recent election held here $35,000 of bonds were voted for the installation of an electric light plant and water-works.

EL RENO, OKLA.—See item under Water Supply—Irrigation.

FRANCIS, OKLA.—The City Council has approved plans for a municipal electric light plant to be erected here.

ELEPHANT BUTTE, N. MEX.—The Government has taken steps to install a temporary electric power plant at the site of the large dam here. It will cost about $500,000, it is stated. O. H. Ensign, Ch. Electrical Engr., of the Reclamation Service, is in charge.

WILCOX, ARIZ.—The installation of a central power plant and transmission system in the Sulphur Spring Valley for the operation of irrigation pumping plants is under consideration here. H. A. Morgan, L. V. McCourt, S. N. Kemp, J. W. Angle and A. I. McAllister have charge of the proposition.

PORT ORCHARD, WASH.—Plans will be drawn, it is stated, for a power-house to cost about $35,000. J. W. Bullard, Tacoma, is Arch.

SUMAS, WASH.—The Western Canada Power Co. will establish a $100,000 power plant and substation here, it is reported.

PORTLAND, ORE.—The Pacific Power & Light Co., it is reported, will extend its transmission system along the Columbia River. A. S. Grenier, Spaulding Bldg., Portland, is Gen. Mgr.

SPRINGFIELD, ORE.—The City Council has granted a franchise to the Oregon Power Co., and a reducing plant will be established here. A 4-inch main will be laid to the Eugene gas plant, now under construction, a distance of four miles.

BAKERSFIELD, CAL.—A. G. Wishon, Gen. Mgr. of the San Joaquin Light & Power Corporation, announces plans of the company to add 6,667 HP. to the present capacity of the new steam generating plant recently completed in this city. The improvements will cost about $250,000.

BENICIA, CAL.—Bids will be received at the Benicia Arsenal, Benicia, Cal., until May 1, for furnishing during the fiscal year ending June 30 electrical supplies. For further information apply to Lieut.-Col. J. W. Benet, Commanding Officer.

ESCONDIDO, CAL.—The City Trustees have authorized W. H. Baldridge, Pres., and Henry Nulton, City Clk., to enter into a contract with the ESCONDIDO UTILITIES CO. for lighting the streets of the city for a term of five years. The contract calls for the installation of fifty lamps. A plan is being considered to install cluster lamps on Grand Ave.

LOS ANGELES, CAL.—Simultaneous with the incorporation of the Southern Counties Gas Co., of California, with a capitalization of $1,000,000, C. H. Pierson, of the Southern California Edison Co., announced that the gas properties owned by his company at Santa Ana and Whittier had been transferred to the new corporation. At the same time the new corporation took over the properties owned and operated by the Orange County Gas Co., which has been serving Orange, Anaheim and Fullerton. Extensions and improvements which will cost $500,000 as planned, include a high pressure line from the Santa Ana plant into the territory to the north. It is also planned to extend high pressure mains north to Monrovia, east through Covina, Azusa and Glendora. The new company is officered at present as follows: Pres., C. S. S. Forney, who is also President of the Covina Valley Gas Co. and the Piedmont Gas Co.; first Vice-Pres., Roy Bradley Wheeler; Treasurer, F. R. Bain, of Fullerton; General Manager, W. A. White, of Santa Ana.

The Treas. of Pacific Branch of the National Home for Disabled Volunteer Soldiers will receive sealed bids up to 12 m., April 24, for constructing and piping of a steam conduit from power-house to Barrack L and for furnishing and installing a steam boiler. Plans and other information may be obtained from E. W. Moore, Treas.

The San Joaquin Light & Power Corporation has authorized a $25,000,000 bond issue for the purpose of carrying on extensive irrigation and reclamation work in the San Joaquin Valley. The officers of the corporation are: W. G. Kerchkoff, Pres.; Allan C. Balch, Vice-Pres., and A. G. Wishon, Gen. Mgr.

QUINCY, CAL.—A power company is being formed for the purpose of developing the hydro-electric resources of the middle fork of the Feather River. It is planned to build a series of power-houses, with a total capacity of 85,000 HP. It is also planned to build storage reservoirs and canals. Among the promoters are George H. Tully, M. P. Barnes and H. R. Lind.

SAN FRANCISCO, CAL.—C. F. Runyon, Pres. of the Mill Valley & Mount Tamalpais Ry. Co., announces the company will extend its line from West Point to Willow Camp, about five miles.

The Great Western Power Co. has purchased the plant of the City Electric Co. (lighting) at $4,000,000.

The Municipal Light & Power Co. filed articles of incorporation here March 24. The new company is capitalized at $1,000,000 and the incorporators are C. C. Searles, San Mateo; J. H. Sandford, San Francisco; Frank Harrold, Fruitvale; Rudolph Spreckels, New York. The company intends to sell steam from the central power plants for heating.

SAWTELLE, CAL.—Bids will be received until April 24 by E. W. Moore, Treas. of the Soldiers' Home, for a steam boiler; also for the construction of conduit from power-house to Barrack L for steam pipes.

SUSANVILLE, CAL.—The Lassen Electric Co. made application to the Bd. of Trustees for a franchise for a period of 50 years for the transmission of electricity for light, heat and power. The Bd. of Trustees will receive bids until 8 p. m., April 28, for the sale of said franchise to the highest bidder. R. E. Baugham is Clk.

WILLOW, CAL.—The Peoples Power Co. has recently been formed here for the manufacture and distribution of gas. The directors are C. R. Wickes, A. S. Lindstrom, A. H. Quatman, J. W. Smith and E. T. Stern.

✚SHERBROOKE, QUE.—The contract for the municipal lighting plant to be erected here has been awarded to the CANADIAN WESTINGHOUSE CO. Contract price, $40,000.

*TORONTO, ONT.—See item under Miscellaneous Contracts—Steam Shovels, Locomotives, Etc., Toronto, Ont.

WINNIPEG, MAN.—Bids will be received until 11 a. m., April 27, by Magnus Peterson, Secy. Civic Bd. of Control, for the supply of electrical equipment and machinery for sub-station No. 1 in connection with the civic power development. Smith, Kerry & Chace, Consult. Engrs., Winnipeg and Toronto, Ont.

✚STRATHCONA, ALTA.—The contracts have been awarded by the City Council for equipments to be installed at the Municipal Electric Plant as follows: CHAPMAN & WALKER CO., Toronto, Can., generator, at $10,160; GERMAN, CLANCEY & GRIDLEY, Edmonton, Alta., regulator, at $750; GOLDIE & McCULLOCK CO., Galt, Ont., engine, at $12,900; CANADA FOUNDRY CO., Toronto, Ont., boilers, at $12,700.

BRIDGES.

(✚ Denotes a contract awarded.)

BOSTON, MASS.—Plans are being prepared by the Strauss Bascule Bridge & Concrete Co., Chicago, Ill., for a 70-ft. single-leaf, double-track bridge over the Charles River for the Boston Elevated Ry. Co. George A. Kimball, Boston, Mass., is Ch. Engr.

*PITTSFIELD, MASS.—Bids will be received by the Clerk of the Board of Public Works until 2 p. m., April 12, for constructing a concrete arch bridge, 63 ft. wide and with a 60-ft. span, on Elm St., crossing the east branch of the Housatonic River. Pamphlets containing information for bidders, form of proposal, contract and specifications will be mailed to contractors who apply to A. B. Farnham, Engr. Bd. Pub. Wks.

CAMDEN, N. J.—Bids will be received by F. W. Gercke, Chn. Bridge Com., until 11 a. m., April 10, for constructing a concrete culvert over Bates' Mill Stream. Alternate bid should be submitted for wooden bridge.

✚PITTSBURG, PA.—We are officially advised that the contract for constructing the three main piers of the North Side Point Bridge across the Allegheny River was awarded on March 23 to the DRAVO CONTRACTING CO., at $182,750. The estimated cost was $210,000. Noted on March 23.

PITTSBURG, PA.—The Commissioners of Allegheny County are considering the construction of sixteen bridges this year, at a total estimated cost of $281,150. The bridges proposed to be constructed are: Over Reardon Run at Hookstown, over Turtle Creek at McClures, over Sewickley Creek, over Tillbrook Run in Patton Township, over Dirty Camp Run in Patton Township, over Plum creek in Plum Township, over the Allegheny River at Natrona, over Chartiers Creek at Duffs Station, over Upper Plum Creek in Plum County, over Dry Run in Jefferson County, over Ripling Run in Franklin County, over Oakwood Run in Chartiers County. These bridges have been approved by grand jury, judges and viewers.

YARDLEY, PA.—The Philadelphia & Reading Ry. Co. contemplates the construction of a concrete arch bridge to cost $400,000, over the Delaware River at Yardley, to replace the present wrought iron structure. The bridge, which will be double track, will be 1,256 ft. long, and will consist of 14 arches, twelve of which will be 90 ft. across, and two 83 ft. The height from the water level to the crown of the arches will be 65 ft. The new bridge will be located 35 ft. south and directly parallel with the present bridge. When completed the present wrought iron deck truss structure will be removed. William Hunter, Philadelphia, Pa., is Ch. Engr. of Construction.

TOWSON, MD.—We are officially advised that plans are being prepared for a 32-ft. single-leaf highway span over the Back River. H. G. Shirley is Roads Engr. of Baltimore County.

PETERSBURG, VA.—The Matoaca Bridge Construction Co. will organize to construct a 2-span steel toll wagon bridge across Appomattox River, connecting Matoaca in Chesterfield County and Ferndale in Dinwiddie County. The structure will be 250 ft. long, 16 ft. wide and of 12 tons capacity. The approaches will be oak trestle. Cost, $7,500. W. M. Martin, Secretary Chamber of Commerce, may be addressed.

*PADUCAH, KY.—Bids will be received at the office of the Board of Public Works until 10 a. m., April 17, for the construction of a reinforced concrete bridge, 43 ft. wide and 295 ft. long. The work will include: Excavation, 170 cu. yds.; concrete piling, 3,720 lin. ft.; concrete in piers, abutments and retaining walls, 514 cu. yds.; concrete in arches, girders, columns, beams, floor and railing, 787 cu. yds.; reinforcing steel in piles, 77,600 lbs.; reinforcing steel in superstructure, 115,866 lbs.; cast steel hinges, 11,000 lbs.; lamp posts, 8; waterproofing, 720 sq. yds. [illegible] cement sidewalks, 4,380 sq. yds.; creoso[illegible] paving blocks, 920 sq. yds. L. A. Wa[illegible]on is City Engr.

CLEVELAND, OHIO.—[illegible] Pennsylvania R. R. Co. and the W[illegible] & Lake Erie R. R. have agreed to [illegible] $90,000 of the $110,000 required to bu[illegible] viaduct to carry Dunham Road over th[illegible] tracks. The new bridge will be 48 ft. [illegible] and will span about 800 ft. It will [illegible] steel and concrete construction. Bi[illegible] its construction will be asked for wi[illegible] days. Robert Hoffman is City Engr.

COLUMBUS, OHIO.—[illegible] have been prepared for constructing [illegible] following bridges: Two bridges over the [illegible] River, one at King Ave. to cost $[illegible] another to cost $25,000; a bridge at [illegible] St. over the Blacklick Creek, to c[illegible] $[illegible]. Henry Maitzel is City Engr.

LORAIN, OHIO.—The [illegible] Commissioners are considering the c[illegible] tion of a high lever bridge at 31st St. [illegible] ated at $40,000. Address the County [illegible] neer.

MOUNT GILEAD, OHIO.—[illegible] will be received by the Commissio[illegible] Morrow and Marion Counties at Mount [illegible] until 1 p. m., April 27, for the constru[illegible] of the superstructure and substructur[illegible] steel bridge known as the Whetstone [illegible], over the middle fork of Whetsto[illegible] creek on the county line between Tully [illegible] ship, Marion County, and Washington [illegible] ship. The structure will be 60 ft. lon[illegible] 14 ft. wide. V. P. Garfield is Clk. Bd. [illegible] of Marion County.

NEW LEXINGTON, OHIO.—Bids will be received until April 24 at [illegible] office of the Perry County Auditor for th[illegible] construction of a bridge over Rush Creek [illegible] Water St. in New Lexington.

PORT CLINTON, OHIO.—[illegible] Strauss Bascule Bridge & Concrete Co., [illegible] ago, is preparing plans for an 118-ft. [illegible] leaf, four-track bridge to be erected by [illegible] Lake Shore & Michigan Southern Ry. ov[illegible] the Portage River at Port Clinton, Ohio. [illegible] R. Leffler, Cleveland, Ohio, is Engr. of Bridges.

✚YOUNGSTOWN, OHIO.—[illegible] HUNTER CONSTRUCTION CO., Young[illegible], has been awarded the contract for er[illegible] the bridge to span the reservoir of [illegible] Commercial Water Co. at Jackson's Gul[illegible]. The bridge will be 400 ft. long and w[illegible] require 200 tons of structural steel.

ZANESVILLE, OHIO.—We are officially advised that plans have been prepared for the construction of a 74-ft. single leaf, double-track bridge at Zanesville for the Baltimore & Ohio R. R. W. S. Bouton, Baltimore, Md., is Engr. of Bridges.

FORT WAYNE, IND.—Bids will be received by the Board of Commissioners of Allen County until April 8 for the construction of a steel bridge to replace the wooden-covered structure spanning the Maumee River at the New Haven road crossing.

✚CHAMPAIGN, ILL.—A contract for constructing a 70-ft. bridge has been awarded to J. M. BREESE, Mattoon, Ill., at $14,000.

JOLIET, ILL.—Bids will be received by the Town Clerk until 2 p. m., April 8, for erecting a concrete arch bridge across the channel of Spring Creek at Landau Ave.

LAWRENCEVILLE, ILL.—Bids will be received at the office of G. W. Lacey, Lawrenceville, until 2 p. m., April 18, for the construction of five steel bridges in Bond Township, Lawrence County, as follows:

Dollahan Bridge.—Span, 60 ft.; removable concrete floor on plain concrete foundations. Estimated amount of concrete in substructure, 113.7 cu. yds.

Waters Bridge.—Span, 30 ft.; roadway, 16 ft.; removable concrete floor. Substructure, plain concrete. Estimated amount of concrete in substructure, 66.7 cu. yds.

Birds Bridge.—Span, 30 ft.; roadway, 16 ft.; removable concrete floor. Substructure, plain concrete. Estimated amount of concrete in substructure, about 49 cu. yds.

Wampler Bridge.—Span, 28 ft. Contract for this bridge to include building a new substructure, cleaning and painting old Miller bridge, that is now laying on bank, 1½ miles from Wampler site, transporting Miller bridge erecting same on the Wampler abutments and placing removable concrete floor. Miller bridge an I-beam structure with lattice rail. Estimated amount of concrete in substructure, 36.5 cu. yds.

Miller Bridge.—Span, 60 ft.; roadway, 16 ft.; removable concrete floor. Substructure, plain concrete. Estimated amount of concrete, 104.4 cu. yds.

✚WATERLOO, IOWA.—A contract for erecting a 2-span concrete bridge has been awarded to MILLER & REY at approximately $12,000.

KANSAS CITY, KAN.—Bids will be received by F. M. Holcomb, Clk. of Wyandotte County, until April 10, for repairing the Fifth St. bridge over Kansas River.

TOPEKA, KAN.—Bids will be received by the City Commissioners until April 10 for constructing a bridge on the north end of Roosevelt St.

DENISON, TEX.—The Missouri, Kansas & Texas Ry. Co. has announced [illegible] intention to pay one-third of the sum necessary to construct steel viaduct over their tracks in Denison. This will connect the business section of the city with South Denison. It is estimated the cost of the structure will be $30,000.

GUTHRIE, OKLA.—Surveys are being made for the construction of a viaduct 1,000 ft. long and 40 ft. wide, to cost [illegible]0,000, at Cleveland Ave.

MUSKOGEE, OKLA.—Bids are being received by the Commissioners of Muskogee County for the construction of [illegible] steel and concrete bridges in Muskogee County to cost $150,000. Charles Wheeler is City Clk.

BROWNLEE, IDAHO.—The sum of $10,000 has been appropriated for the construction of the Snake River bridge at Brownlee.

PORTLAND, ORE.—Bids will be received at the office of F. S. Fields, Clk. of Multnomah County, Portland, until 2 p. m., April 14, for the construction of the West Portland bridge.

LOS ANGELES, CAL.—A bascule bridge, 180 ft. long, will be erected in the west basin of San Pedro Harbor.

SAN FRANCISCO, CAL.—Bids will be received by the Board of Public Works, Joseph L. McCormick, Secy., until 3 p. m., April 26, for constructing a reinforced-concrete viaduct and an earth filled approach along Mission St., between Bosworth St. and the southeasterly line of Springdale St.

SAN PEDRO, CAL.—We are officially advised that plans are being prepared for the construction of a 187-ft. single-leaf double-track bridge for the Southern Pacific Ry. Co. J. D. Isaacs, Chicago, Ill., is Consult. Engr. for the Railway.

QUEBEC, QUE.—The Strauss Bascule Bridge & Concrete Co., Chicago, Ill., has prepared plans for an 88-ft. single-leaf, single-track bascule span for the cross-wall bridge over the entrance to Princess Louise Docks, Quebec. St. George Boswell, Quebec, is Ch. Engr. of Harbor Commissioners of Quebec.

CAMPBELLFORD, ONT.—The Strauss Bascule Bridge and Concrete Co., Chicago, Ill., have delivered plans to A. J. Grant, Supt. Engr., Dept. of Railways and Canals of Canada, Peterborough, Ont., for an 108-ft. single-leaf bascule bridge over the Trent Canal at Campbellford.

PETERBOROUGH, ONT.—We are officially advised that plans have been prepared for two 80-ft. single-leaf bascule bridges; one to be erected over the Trent Canal for the Northumberland Paper Mills Co., and the other to carry the tracks of the Grand Trunk Ry. over the Trent Canal. A. J. Grant, Peterborough, Ont., is Supt. Engr., Dept. Railways and Canals of Canada.

✚EDMONTON, ALTA.—The contract for the erection of the sub-structure for the Grand Trunk Pacific R. R. bridge on the Edson-Brazeau branch has been awarded to COLLINS BROS. & HAMILTON, Heatherwood, Alta.

✚RED DEER, ALTA.—The contract for the steel bridge across the Red Deer River for the Alberta Central R. R. has been awarded to GOOLIE & JACKSON, Montreal, Que. The contract for the bridge across the Saskatchewan River has been awarded to ARMSTRONG & SON, Red Deer, Alta.

BATTLEFORD, SASK.—The Grand Trunk Pacific R. R. is preparing to erect a bridge on the Battleford-Wainwright branch. Address E. J. Chamberlain, Winnipeg, Man., Gen. Mgr.

✚FERNIE, B. C.—The Canadian Pacific R. R. Co. has awarded a contract to DIGBY & GRENIER, Fernie, B. C., for the construction of a 860-ft. bridge, 137 ft. above the Old Man River. The work involves driving 500 piles, 2,000 sq. yds. of excavation, 1,000 sq. yds. of concrete and the use of 1,500,000 ft. of lumber.

BUILDINGS.

(*Denotes that this work is advertised in Engineering News.)

BOSTON, MASS.—A new theater is to be built on the site of Chickering Hall, on Huntington Ave. It will be called the St. James, will be fireproof, and will provide for 1,800 seats. M. H. Gulesian is the owner and promoter.

The New England Reform Society is about to erect a group of three buildings near Forest Hills for hospital purposes. Proposed cost, about $62,000. Edward F. Stevens is Arch.

A 10-story office building is planned opposite the post-office in Devonshire. It is to be completed by April 1, and the cost will be about $600,000. It will cover 7,200 sq. ft. and will be built of limestone. William A. Gaston is Trustee of the managing estate, and Parker, Thomas & Rice, 110 State St., are Archs.

ALBANY, N. Y.—The Board of Contract and Supply has decided to have one general contract for the new high school, instead of awarding separate contracts for excavating, building, heating, plumbing, etc. The Board has directed the Secretary to advertise for bids for constructing a 4-room addition to School No. 16, North Allen St. Plans drawn by Architect William J. Obenaus call for a 2-story and basement structure of brick.

BUFFALO, N. Y.—The Common Council has voted for the purchase of a site bounded by South Park Ave., Josie Place, Taylor Place and Macawley St. for the erection of the South Side high school.

Jacob Oberkircher, 46 Orange St., has completed plans and is receiving bids for a 2-story and basement store and apartment building, 53 × 86 ft., at Oak and Virginia Sts., for the Buffalo Cooperative Brewing Co.

✚Swift & Co. have awarded the contract to THE MACDONALD ENGINEERING CO., Chicago, Ill., for erection of a 2-story and basement cold storage and wholesale market building at Perry and East Market Sts. Cost, $45,000.

✚MOSIER & SUMMERS, 1266 Seneca St., have received contract for department store building to be erected at Genesee and High Sts. by A. L. Weber for J. M. Brecker & Co., Lessees. The structure will be four stories and basement, 90 × 100 ft., of brick, steel and terra cotta. The BUFFALO STRUCTURAL STEEL CO. will fabricate and erect the steel work. The estimated cost is $40,000.

John W. Gibbs, 101 D. S. Morgan Bldg., is receiving bids for a 3-story and basement store and office building, 200 × 200 ft., brick, structural iron and terra cotta, to be erected at Main and Goodrich Sts., from plans prepared by Colson & Hudson, 35 Dun Bldg., Buffalo, N. Y.

Swift & Co. have filed plans for a 2-story concrete warehouse at 85-87 East Market St. to cost $50,000.

Willis P. Chapin has filed plans for a $40,000 stone residence at 1205 Delaware Ave.

✚FT. H. G. WRIGHT (New London post-office), N. Y.—The contract has been awarded to the HARRY McNALLY BUILDING CO., 5 East 42d St., for the construction of the Fort H. G. Wright hospital. The building will cost $40,000.

LONG ISLAND CITY, N. Y.—A 16-story office building will be constructed by the Tubes Realty & Terminal Co. at the intersection of Van Alst Ave. and Fourth st. The basement of the building will be used as a station of the Belmont tunnel. The executive offices of the Tubes Realty & Terminal Co. are at 516 Fifth Ave., Manhattan.

MOUNT VERNON, N. Y.—The Hiawatha Lodge, F. and A. M., has decided to build a temple at a cost of $50,000. Robert A. Greenfield is interested.

NEW ROCHELLE, N. Y.—Members of the Huguenot Yacht Club have authorized the Trustees to build a modern club-house on a recently purchased site on Neptune Island. Plans will be drawn soon.

Andrew Carnegie has increased his offer to $60,000 from $25,000 for a public library, provided the Common Council guarantees a maintenance fund of $6,000 a year. Harry E. Colwell is Mayor. It is thought the offer will be accepted.

NEW YORK, N. Y.—Bids will be received by C. B. J. Snyder, Supt. of School Bldgs., until April 17, for the general construction, etc., of the Public School 47, on the southerly side of Randolph Ave., between St. Lawrence and Beach Aves., Boro. of the Bronx.

NEW YORK, N. Y.—A 12-story brick granite and limestone apartment house will be erected at 72d St. and Amsterdam Ave. by the Brown Bros., 33 East 20th St. George and Edward Blum, 505 Fifth Ave., are Archs. The estimated cost is $300,000.

Schaefer & Jaeger, 1910 Webster Ave., Bronx, are preparing plans for the erection of two 5-story apartment buildings to be erected at 180th St. and Hughes Ave. for Henry O. James Cleland, 178th St. and Anthony Ave. The estimated cost is $100,000.

✚Tucker & Vinton, 103 Park Ave., are the general contractors for the construction of a storage warehouse to be erected on the south side of 65th St., near West End Ave.

Bids will be received soon by C. B. J. Snyder, 500 Park Ave., for the construction of a 5-story limestone and terra cotta school building on the south side of Twelfth St., between Aves B. and C. The estimated cost is $290,000.

Louis E. Jallade, 37 Liberty St., has completed plans for the construction of a 10-story fireproof dormitory for the Y. M. C. A. of New York, 215 West 23d St. The estimated cost is $150,000.

A 6-story brick storage and factory building will be erected at 415-421 West 55th St. The estimated cost is $80,000.

A 12-story brick, limestone and architectural terra cotta loft building will be erected by the Stone Construction Co., 45 West 34th St. The estimated cost is $300,000. Rouse & Goldstone, 38 West 32d St., are Archs.

The Aeolian Co. has purchased property at West 42d St. on which a 16-story office building will be erected. The estimated cost is $1,500,000.

Bids will be received by Charles B. Stover, Pres. Dept. of Parks, until April 6, for all labor and materials required for the erection and completion of comfort and shelter building located in Bushwick Playground, at Putnam Ave. and Woodbine St. extension, Borough of Brooklyn, together with all the work incidental thereto.

✚The contract has been awarded to the TURNER CONSTRUCTION CO., 11 Broadway, for an eight-story scenery storage building, to be erected at West 47th St., Manhattan, 96 ft. x 50 ft. in plan, reinforced concrete throughout, for Mr. Ernest Flagg, owner and architect. Work will be started soon.

ROCHESTER, N. Y.—Gordon & Madden, Sibley Bldg., have completed plans and will soon receive bids for the erection of a church and school building, 60 × 130 ft., by the Church of the Sacred Heart, Flower City Park, between Lake Ave. and Raines Park. Estimated cost, $75,000. Rev. Geo. V. Burns is Pastor.

SALAMANCA, N. Y.—The Buffalo, Rochester & Pittsburg R. R. Co. is completing plans for a new passenger and freight station, which it will erect here. Estimated cost, $60,000.

SYRACUSE, N. Y.—Merritt C. Conway, Bastable Bldg., has completed plans for an 8-story and basement store and office building of reinforced concrete and stone to be erected on South Warren St. by J. A. Seitz. Estimated cost, $150,000.

✚TROY, N. Y.—The contract has been awarded to the CHARLES P. BOLAND CO., 30 Fourth St., Troy, at $122,200, for the construction of proposed jail here. Other bidders were: The Van Dorn Iron Co., Cleveland, Ohio, $145,750; Nial Brothers Construction Co., Troy, $142,140; Charles Crowley Construction Co., Troy, $144,441; James Dollard Construction Co., Troy, $145,387; William E. Martin Co., Troy, $143,567; Peter Keller Construction Co., Albany, three bids, dependent upon the kind of lock device to be used, $126,200, $127,190 and $127,180.

UTICA, N. Y.—The Board of Contract received these bids for construction of new central fire station: Thomas F. Byrnes, $54,808; Pius Kerner & Son, $54,000; Hugh O. Roberts, $55,988; Thomas C. McDermott, $54,634; Yeomans, Kunkel & McCarthy, $55,977; R. G. Lloyd Co., $54,900; John F. Hughes Construction Co., $55,495; Richards & Son, $50,822; Felix G. Baptist, $54,800; Griffiths & Pierce, $58,277.

YONKERS, N. Y.—Bryn Mawr Catholic Church, Rev. James F. McNamara, Rector, has purchased a site at Sawmill River Road and Palmer Ave. on which to build a church.

TRENTON, N. J.—Bids will be received until April 6 by the Board of Education for improvements to the McKinley School, No. 10. Separate bids will be received for heating, plumbing, etc. William B. Thines, 416 Commonwealth Bldg., is Arch.

CANONSBURG, PA.—The Board of Education will receive bids until May 1 for the erection of a 2-story and basement school. W. G. Eckles, Lawrence Savings & Trust Bldg., New Castle, Pa., is Arch.

✚PHOENIXVILLE, PA.—The contract for the construction of the Phoenixville High School has been awarded to the AMERICAN CONCRETE STEEL CO., Union Bldg., Newark, N. J. Contractor will let sub-contracts in all lines.

BALTIMORE, MD.—New Era Realty & Construction Co., Whitelock St. and Brookfield Ave., will erect double apartment house on Whitelock St. near Brookfield Ave., 72 × 72 ft., fireproof construction, electric lights and hot-water heating. The probable cost is $42,000.

NORFOLK, VA.—Bids will be received until April 8 for constructing a 16-room school in Berkley Ward. Lee & Diehl, Seaboard Bank Bldg., are Archs.

Bids will be received until April 8 for constructing a fireproof grammar school on Queen St. B. F. Mitchell, Seaboard Bank Bldg., is Arch.

SOUTH BOSTON, VA.—H. M. Miller, Roanoke, Va., will have plans ready for bids in about three weeks to erect an edifice for Baptist congregation with a seating capacity in auditorium and Sunday school room of 1,200 persons.

SUFFOLK, VA.—Bids will be received until April 25 for the construction of a school building. Plans prepared by Charles M. Robinson, Mutual Bldg., Richmond, Va.

VIRGINIA BEACH, VA.—The Norfolk Southern R. R., F. L. Nicholson, Ch. Engr., Norfolk, Va., opened bids for the erection of a casino, to contain a hotel, dance hall, etc., and cost about $40,000. Walker Construction Co., Norfolk, Va., is lowest bidder.

✚BROOKHAVEN, MISS.—James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., has awarded contract for the construction of a U. S. post-office at Brookhaven, Miss., to STUART & RANDALL, Oklahoma City, Okla., at $50,570.

ALLIANCE, OHIO.—Bids were received as follows on March 30 by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of a post-office at Alliance, Ohio: Barnes Bros., Logansport, Ind., $59,300; Skeil Bros., Cleveland, Ohio, $93,596; James Corse, Racine, Wis., $61,000; Ed Henry, Catlettsburg, Ky., $61,747; King Lumber Co., Charlottesville, Va., $66,700; John G. Unkefer & Co., Minerva, Ohio, $54,833; Harry A. Bishop, Chicago, $57,000; James L. Stuart, Petersburg, Va., $59,480; H. Karg, Columbus, Ohio, $57,533; Ambrose B. Stannard, New York, N. Y., $64,000; J. E. & A. L. Pennock, Philadelphia, Pa., $59,487; George Hinchcliff Co., Chicago, Ill., $69,000; Merrick Fireproofing Co., New York, N. Y., $69,000.

ASHLAND, OHIO.—Bids will be received until April 12 for erecting a city hospital. F. L. Packard, Hayden Bldg., Columbus, Ohio, is Arch.

COLUMBUS, OHIO.—Bids will be received by the Board of Education of Nifflin Township until April 15 for the necessary labor and material for the construction of a school building in East Columbus and East Linden. George B. Cassady is Clk.

✚ANDERSON, IND.—The Anderson Lodge of Odd Fellows have awarded a contract to WILLIAM E. THOMPSON, a local contractor, for the construction of a new lodge building.

*AUBURN, IND.—Bids will be received by Alpheus W. Madden, County Audr., until 10 a. m., May 4, for labor and material necessary to raze old court-house and completion of new county court-house. (For further particulars see advertisement).

BRAZIL, IND.—The County Council and Board of Commissioners are taking steps to erect a new court-house. Estimated cost, $100,000.

The Commissioners of Clay County are preparing to ask for bids for remodeling and repair of the county jail.

DECATUR, IND.—Charles E. Magley, Trustee of Root Township, will receive bids until April 8 for the erection of a school. Oscar Hoffman, Decatur, is Arch.

DELPHI, IND.—The Trustees of the Local Lodge of Masons will receive bids until April 20 for the construction of a masonic temple, 80 × 116 ft. Plans are ready for bidders.

✚EVANSVILLE, IND.—W. S. Gilbert has awarded a contract for the construction of a large business block on Main St. to M. J. HAFFINAN. Clifford Shopbell is Arch.

INDIANAPOLIS, IND.—The Indianapolis School Board is considering plans for a hotel training school building on the Technical Institute grounds. The plans call for an outlay of $350,000. Eugene Gerard, of Niagara Falls, N. Y., Chmn. Training School Com., is interested in the construction of the building.

L. G. Rothchilds, custodian, is asking for bids for the remodeling of the Federal building here.

JERSEY, IND.—Bids will be received until April 22 for constructing a school here. H. C. Jones, Columbus, Ohio, is Arch.

NEW CASTLE, IND.—The Trustees of the Indiana Village for Epileptics have ordered plans on which bids will be asked for the construction of an additional brick building.

NEW HAVEN, IND.—The School Trustees, H. R. Tenker, Chn., will soon ask for bids for the erection of a new high school building.

OAKLAND CITY, IND.—Trustees of the Oakland City College have ordered plans on which they will receive bids for the erection of a large and modern dormitory.

PORTLAND, IND.—The Commissioners of Jay County have taken steps toward the erection of a new and modern court-house. The tentative plans call for an expenditure of $250,000.

TERRE HAUTE, IND.—Fairbanks & Fatley have received the plans for the erection of a new business block on Wabash Ave. Bids will be received soon.

Anton Mayer has ordered plans for the construction of a 7-story annex to his business block. Bids will be received as soon as plans are completed.

WABASH, IND.—B. F. Hubbard, Trustee, will receive bids until April 21 for the erection of a large addition to the Linlawn school building and for a new heating plant.

DETROIT, MICH.—The Dime Savings Bank, Fort and Griswold Sts., has issued a circular inviting the stockholders to subscribe to a $1,000,000 stock issue and $1,700,000 in first mortgage bonds for the proposed 20-story bank and office building that is to be erected at the northwest corner of Fort and Griswold Sts. Plans are being prepared by D. H. Burnham, of Chicago, Ill., and it is reported that building operations will be started about May 1.

Harry C. Stevens, Sun Bldg., has been selected as architect by the Broadway Market Co. for the construction of a 3-story and basement building, 164x110 ft., to be constructed of reinforced concrete and to be strictly fireproof. The estimated cost is $200,000.

Van Leyen & Schilling, 1117 Union Trust Bldg., have been selected by the syndicate represented by C. R. Loucks, 816 Woodward Ave., to prepare plans for a new 7-story and basement hotel, 298x300x100 ft., to be located at Adams and Bagley Aves. The hotel will contain 500 rooms, a large auditorium and will have 126,000 ft. of floor space. The estimated cost is $1,500,000.

✚Baxter & O'Dell, Hammond Bldg., have awarded the masonry contract for the new 4-story and basement apartment building to HENRY CAREW, 210 Joseph Campau Ave. The cost is $40,000.

The Common Council of the City of Detroit has approved and allowed the following estimates for the construction of school buildings: High School building at Grand River Ave. and Boulevard, $280,000; 16-room school in Fox Creek vicinity, $79,000; 16-room school on Warren and Beechwood Aves., $79,000; 18-room school at Forest and Newland Aves., $80,000; 18-room school at Taylor Ave. and Hamilton Boulevard, $80,000; 8-room addition to Estabrook school, $55,000; 8-room addition to Franklin school, $54,000; addition to Russell school, $55,000; equipment for Cass High School, $51,788. Plans and specifications for these schools have been prepared by Malcomson & Higginbotham, 404 Moffat Bldg., Archs., and Ammerman, McCall & Anderson, 1332 Penobscot Bldg., are Engrs.

B. C. Wetzel & Co., 404 Hammond Bldg., are preparing plans and will take figures soon on a new 6-story and basement store building, 60 × 70 ft., to be located on Third Ave., near Fort St. W. The structure to be of paving and stock brick, structural iron, reinforced concrete. Cost, about $50,000.

ESCANABA, MICH.—J. D. Chubb, Chicago Opera House Bldg., Chicago, has preliminary sketches under way for a $125,000 hotel building in Escanaba, Mich.

IONIA, MICH.—Bids were received as follows on March 31, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of a post office at Ionia, Mich.: George Hinchcliff Co., Chicago, Ill., $62,000; C. Hoertz & Son, Grand Rapids, Mich., $55,189; General Construction Co., Milwaukee, Wis., $60,454; Theophile F. Banhagel, Ionia, Mich., $67,659; Merrick Fireproofing Co., New York, N. Y., $77,550; King Lumber Co., Charlottesville, Va., $64,000; James Corse, Racine, Wis., $55,424; Carl J. Lange, Appleton, Wis., $58,747; G. W. Stiles Construction Co., Chicago, Ill., $60,537; Charles W. Gindale Co., Chicago, Ill., $59,000.

CHICAGO, ILL.—The American Book Co., New York, N. Y., will erect a building to cost about $150,000 at 2149 Prairie Ave., Chicago.

✚The City Hall Square Co. is about to build an office and theater building. The steel contract has been awarded to BROWN & KETCHUM. Figures are now being taken on cut stone and terra cotta by the Architect, C. A. Eckstrom, 1005 Tacoma Bldg. The remaining contracts will be let as the work progresses.

MT. CARMEL, ILL.—Bids will be received until April 11 by C. E. Launer, Secy., Mt. Carmel, Ill., for the construction of the Knell Fraternity Hall here.

✚ANTIGO, WIS.—B. HERMAN & SON, Archs. and Contractors, are preparing for the construction of two business blocks, one to be 36 × 100 ft., two stories high, and the other 28 × 60 ft., two stories high both of brick construction, with concrete foundations. Builder is Arch.

✚FOND DU LAC, WIS.—The Wisconsin Telephone Co., Alonzo Burt, Pres., Milwaukee, has awarded contracts for the erection of its new Fond du Lac exchange as follows: Mason, concrete and carpenter work, MAJESTIC CONSTRUCTION CO., Majestic Bldg., Milwaukee; plumbing, heating, gas fitting, etc., AHERN-McCOY CO., Fond du Lac. The exchange will be two stories high,

reinforced-concrete construction, with pressed brick veneer and Bedford stone embellishments. Cost, about $85,000, fully equipped.

LAKE GENEVA, WIS.—The Northwestern Military Academy, Highland Park, Ill., through Maj. R. P. Davidson, announces that a $250,000 school plant is proposed at Lake Geneva.

OSHKOSH, WIS.—Bids will be received until April 6 by J. E. Mallery, Chn. Bd. of Pub. Wks. for labor and material necessary to construct the Orville Beach Memorial Manual Training School.

✚RACINE, WIS.—Chandler & Park, Archs., Racine, Wis., have awarded additional contracts on the new $125,000 high school building at Albert Lea, Minn., as follows: Heating and ventilating, H. KELLY & CO., Minneapolis, Minn.; plumbing, FT. DODGE HEATING & PLUMBING CO., Fort Dodge, Iowa.

WAUPACA, WIS.—The School Board has rejected all plans for the proposed $65,000 high school and now contemplates the erection of a combination high and graded school at a cost of not to exceed $50,000.

✚WAUSAU, WIS.—JOHN ANDERES & CO., Wausau, have been awarded the general contract for the construction of the new main office and exchange of the Citizens' Telephone Co. It will be three stories high, 33 × 86 ft., of reinforced concrete, with pressed brick facings and terra cotta trimmings. The estimated cost is $50,000.

*FARIBAULT, MINN.—Bids will be received until May 9 by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction, complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring), of the U. S. post-office at Faribault, Minn. Drawings and specifications may be had from the Custodian of site at Faribault, Minn., or at the discretion of the Superv. Arch.

✚ST. PAUL, MINN.—The contracts for the main medical and anatomy buildings to be built at the State University will probably be awarded to J. & W. A. Elliott, 906 Lumber Exchange, Minneapolis, and Olaf Swenson, 945 Clark St. C. H. Johnston is Arch.

WINDOM, MINN.—George Le Tourneaux, Clk. School Bd., will receive bids until April 21 for labor and material necessary to construct a school. Fremont D. Orff, 615 Lumber Exchange Bldg., Minneapolis, Minn., is Arch.

CIRCLEVILLE, KAN.—Jesse Nelson, Secy. Board of Education, Circleville, will receive bids until April 21 for the construction of a 2-story and basement brick school. W. F. Germandt & Co., Fairbury, Neb., are Archs.

WETONKA, S. DAK.—The Board of Directors, Lincoln Township School Dist., will receive bids until April 15 for erecting a brick and stone school. J. K. Van Ess, Aberdeen, S. Dak., is Arch.

DICKINSON, N. DAK.—Bids will be received until April 11, for erecting a brick hospital at Dickinson. A. Dohmen, Milwaukee, Wis., is Arch. The estimated cost is $60,000.

EDGELEY, N. DAK.—George Lee, Clk. Golden Glen School Dist., will receive bids until April 21 for erecting a high school. Hancock Bros., Fargo, are Archs.

FLASHER, N. DAK.—Bids will be received until April 26 by E. F. Leonard, Clk. Bd. of Educ., for labor and material necessary to construct a grade school. Haxley & Gillespie, Fargo, N. Dak., are Archs.

MOTT, N. DAK.—The Board of Education will receive bids until April 25 for the erecting of a grade and high school. Haxley & Gillespie, Fargo, N. Dak., are Archs.

SARCOXIE, MO.—Bids will be received until April 7 by G. W. Wood, Secy. Bd. of Educ., for erecting a school. Garstang & Rea, 204 Grome Bldg., Joplin, Mo., are Archs.

*HOPE, ARK.—Bids will be received until May 11 by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction, complete, including plumbing, gas piping, heating apparatus and electric conduit and wiring of the U. S. post-office at Hope, Ark., in accordance with drawings and specification, copies of which may be obtained from the Custodian of site at Hope, Ark., or at this office, at the discretion of the Superv. Arch.

✚LEWISTON, IDAHO.—James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., has awarded contract for the construction of a U. S. post-office at Lewiston, Idaho, to the SOUND CONSTRUCTION & ENGINEERING CO., Seattle, Wash., at $76,956.

EUREKA CITY, UTAH.—E. W. Redmond, City Recorder, will receive bids until April 14 for constructing a jail.

MONTSANO, WASH.—A fireproof school house is to be erected by the Board of School Directors. Geo. W. Gauntlett is City Clk. and City Engr.

✚BELLINGHAM, WASH.—James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., has awarded contract for the construction of a U. S. post-office at Bellingham, Wash., to J. H. WEISE, South Omaha, Neb., at $214,565.

PASCO, WASH.—Bids will be received until April 18 by L. H. Koontz, City Clk., for the construction of a reinforced-concrete city hall. Plans were prepared by C. Lewis Wilson & Co., Archs.

PENDLETON, ORE.—Bids will be received until May 15 for the construction of a school here. Plans were prepared by C. E. Troutman, Aberdeen, Wash. The estimated cost is $100,000.

✚CLAREMONT, CAL.—The Board of School Trustees has awarded contract to DAVID IRVINE, of Riverside, for the erection of the main building for the high school group on his bid, $56,690. The MACHINERY & ELECTRICAL CO., of Los Angeles, secured the contract for heating and ventilating at $4,433.

LOS ANGELES, CAL.—Bids will be received by the city until April 17 for $45,000 of school bonds.

✚The F. O. ENGSTROM CO., Fifth and Seaton Sts., has been awarded the contract for the erection of a 4-story brick apartment house, 110 × 152 ft., on Flower St., for the Oreno Esta'e at $75,000. R. B. Young & Son, Lankershim Bldg., are Archs.

✚MONROVIA CAL.—The American Monrovia Investment Co. has awarded contract to the KLING CO., Front Bldg., Los Angeles, for erecting a 2-story concrete office and store building here, to be 90 × 92 ft., at $48,503. Thornton Fitzhugh, Pacific Electric Bldg., Los Angeles, is the Arch.

OAKLAND, CAL.—Jarvis Hunt, Chicago, Ill., has prepared plans for a 2-story Class A station to be erected here by the Southern Pacific R. R. Co. Estimated cost, $250,000.

RIVERSIDE, CAL.—The Board of Education will receive bids until April 15 for constructing four high school buildings. Norman F. Marsh, Central Bldg., Los Angeles, Cal., is Arch.

✚SACRAMENTO, CAL.—E. C. Hemmings has awarded contract to the RANSOME CONCRETE CO., Mechanics Institute Bldg., San Francisco, for the erection of a 6-story class C building on J st. for Isidor F. Morris. Amount, $42,440.

✚SAN DIEGO, CAL.—THE F. O. ENGSTROM CO., Fifth and Seaton Sts., Los Angeles, have been awarded general contract for constructing a 5-story concrete department store building, 100 × 200 ft., for Geo. W. Marston. The structure will cost $300,000. Geo. W. Kelham, Crocker Bldg., San Francisco, is Arch.

FAIRVILLE, N. B.—Bids will be received until April 10 by the Public Works Dept., Ottawa, Ont., for constructing a public building here. D. H. Waterbury, St. John, is Supt. of Pub. Bldgs.

✚FORT WILLIAM, ONT. — RUSSELL BROS. have been awarded the contract for the 64 × 145 ft. addition to the Central School, at $74,492.

GODERICH, ONT.—Competitive plans will be received by L. L. Knox, Town Clerk, until April 15 for a proposed municipal building.

PRESTON, ONT.—Bids will be received until April 10 for constructing an edifice for the Roman Catholic congregation. Father Gehl is Rector.

TORONTO, ONT.—Bids will be received until April 11 by F. H. Herbert, 65 Adelaide St., for the erection of a 6-story brick, steel and reinforced-concrete fireproof building at King and Parliament Sts., for the Aluminum & Crown Stopper Co.

A site has been purchased by the Roman Catholic Episcopal Corporation, Archbishop F. P. McEvay, Pres., upon which a Ruthenian church will be erected to cost $50,000.

The Caer Howell property, corner Ord and University Sts., has been sold for $100,000 to Geo. Wright and E. M. Carroll, of the Walker House. A large family hotel will be built at a cost of $1,500,000.

The William Davies Packing Co. (J. W. Flavelle, Pres.) has purchased for $125,000 the Carlton Methodist Church property on Carlton, near Yonge St., upon which will be erected large offices and a warehouse building.

The Home Bank has purchased the corner of Yonge and Alcorn Ave. upon which to build a branch.

WINNIPEG, MAN.—Bids will be received until April 12 by the Board of Control, M. Peterson, Secy., for the supply of all labor and material required in the erection of a tubercular hospital building. Plans and specification may be seen at office of Geo. G. Teeter, Arch., 604 Builders' Exchange Bldg.

D. Ackland & Son, 73 Higgins Ave., will build a large 4-story warehouse for blacksmith's and other hard woods. F. R. Evans is Arch.

Bids will be received shortly for the first portion of the new Parliament buildings. S. Hooper is Provincial Arch.

The Ontario Wind Engine & Pump Co. is having plans prepared for a new warehouse which will be built of brick, to be four stories high and 100 × 70 ft.

Bids will be received until 4 p. m., April 11, by R. H. Smith, Secy. Pub. School Bd., for the erection of a 136 × 56 ft. addition to Strathcona School, making that building the largest of its kind in Canada. Estimated cost, $75,000.

The Canadian Pacific R. R. will add two stories to the Royal Alexandra Hotel here, making an addition of over 200 rooms. Plans are now being prepared in Montreal, Que.

Plans are being prepared by Frank R. Evans, Arch., for the construction of two buildings to be erected on Higgins Ave. for D. Ackland & Son. The structure will be of red brick, cut stone and steel construction to carry heavy weights. Each building will cost approximately $100,000.

The Confederation Life Assurance Co. is having plans prepared in Toronto for a large office building to be erected on Main St. Work will start this summer.

Peter Lyall & Co. have prepared plans for a 16-story office building to be erected on Main St. at a cost of over $1,000,000. Bids for construction will be called shortly.

Bids will be called in a few days for the proposed Y. M. C. A. building here, which will cost about $600,000.

The Grand Trunk Pacific Ry. will shortly call for bids for the erection of 140 station buildings in Western Canada. Address E. J. Chamberlain, Gen. Mgr., Winnipeg, Man.

Rose & McFarlane, Montreal, Que., have completed the plans for the Grand Trunk Pacific R. R. Co.'s hotel here, bids for which will be called at once. It will contain approximately 500 bed rooms and will cost about $2,000,000. Address E. J. Chamberlain, Gen. Mgr., Winnipeg, Man.

Bids will be received by R. H. Smith, Secy. Treas. Winnipeg School Board, for all trades necessary for the erection of a 12-roomed brick and stone fireproof school house here. J. B. Mitchell is Schools Building Comr.

✚KERROBERT, SASK.—F. W. DOWNS has received the contract for building a 6-stall round house here for the Canadian Pacific R. R., at $75,000.

MOOSEJAW, SASK.—Bids will be received until noon, April 10, by R. G. Bunyard, Arch., for the erection of car barns and power house for the Moosejaw Street R. R. Co.

The City Council will submit to the ratepayers a by-law to raise money to build a hotel to be run as a municipal enterprise, if no satisfactory proposition is received before May 1, from capitalists.

VANCOUVER, B. C.—Bids will be received until 4 p. m., April 24, by R. C. Desrochers, Secy. Dept. Pub. Wks., Ottawa, Ont., for the erection of an examining warehouse here. Plans and specifications may be seen at the Department of Public Works at Winnipeg, Man.; Vancouver, B. C., and Victoria, B. C.

Bids will be received until April 24 by R. C. Desrochers, Secy. Public Works Dept., Ottawa, for the construction of an examining warehouse at Vancouver. Plans and information from J. E. Cyr, Supt. Public Buildings, Winnipeg, or Department at Ottawa.

CALGARY, ALTA.—Bids will be received until April 13 by J. S. Dennis, Mgr., for the erection and completion of reinforced-concrete building at Calgary for the new offices of the Irrigation, Alberta and British Columbia Land Department, Canadian Pacific Ry. Plans and specifications may be seen at offices of Hodgson, Bates & Butler, Grain Exchange, Calgary, or Builders' Exchange, Winnipeg.

John Lineham is having plans prepared for an apartment block to be erected at the corner of Sixth Ave. and Second St. It will have 110 rooms and will cost about $60,000.

EDMONTON, ALTA.—The Canadian Bank of Commerce has purchased a site here upon which a handsome bank building will be erected this year.

Officials of the Grand Trunk Pacific R. R. announce that the company will erect large hotels at Edmonton, Alta., and Regina, Sask. Address E. J. Chamberlain, Gen. Mgr., Winnipeg, Man.

The Ames-Holden Co., Winnipeg, Man., and Montreal, Que., is about to erect a 5-story wholesale block.

E. F. Hutchings, of Winnipeg, Pres., of the Great West Saddlery Co., is making arrangements for the construction of a 6-story warehouse to cost $100,000.

✚GEO. A. ARCHIBALD & CO., Calgary, Winnipeg and New York, have been awarded the contract for a business block for Robert Tegler from plans prepared by H. A. Magoon, Arch., Edmonton. The building will be 80 ft. high, 70 × 100 ft. Cost, about $160,000.

WATER SUPPLY—IRRIGATION.

(✚ *Denotes a contract awarded.*)

ATHOL, MASS.—The town is planning the construction of a water-works system. James L. Tighe, of Holyoke, Mass., has been engaged as engineer and an appropriation of $30,000 has been made to begin work this year.

✚BOSTON, MASS.—The contract was awarded on March 21 by the city to the U. S. CAST IRON PIPE & FOUNDRY CO., 71 Broadway, New York, for 2,880 tons of pipe and 25 tons of special castings at $20.70 and $47 per ton, respectively. Other bidders were: Warren Foundry & Machine Co., $22.75 and $45; Standard C. I. Pipe & Foundry Co., $20.70 and $30; Florence Iron Works, $21.10 and $48. Louis K. Rourke is Comr. Pub. Wks.

BOSTON, MASS.—Bids will be received until April 6 by Louis K. Rourke, Comr. Pub. Wks., for laying about 6,000 ft. of 8, 10 and 12-in. water pipe in various streets.

✚The contract for 500,000 lbs. of iron castings was awarded in March 21 by the city to the GIBBY FOUNDRY CO., at 2.05 cts. per lb.

✚The contract was awarded on March 21 to the ESSEX BRASS FOUNDRY CO., at 14 cts., 18¾ cts., and 20¾ cts. for Nos. 1, 2 and 3 metal, composition castings, the quantities being respectively 3,500 lbs., 30,000 lbs., and 8,000 lbs. The only other bidder was the J. H. McCafferty Co., at 14 cts., 21¼ cts., and 22½ cts.

HOLYOKE, MASS.—The city is considering the construction of a water main to Smith's Ferry. Estimated cost, about $25,000. T. J. McCarthy is City Engr.

✚PITTSFIELD, MASS.—The city on March 27 awarded the contract to the CHARLES MILLAR & SON CO., of Utica, N. Y., for supplying 3,800 tons of water pipe, at $82,926. Other bidders were: U. S. Cast Iron Pipe & Foundry Co., New York, $83,344; Warren Foundry & Machine Co., New York, $87,024; R. D. Wood & Co., Philadelphia, Pa., $83,253; Standard Cast Iron Pipe & Foundry Co., Bristol, Pa., $86,806.

BUFFALO, N. Y.—Bids will be received until April 7 by the Board of Public Works for furnishing and erecting complete a feed water heating and purifying system for the pumping station at the foot of Massachusetts Ave. F. G. Ward is Comr.

CORTLAND, N. Y.—The Water Board will soon ask for bids for the construction of the proposed new water tank, to have a capacity of 1,000,000 gallons. D. B. Coleman is City Engr.

GENEVA, N. Y.—We are officially advised that the city is considering the improvement of the water-works system. Estimated cost, $125,000. C. T. Church is City Engr.

NEW YORK, N. Y.—Bids were received as follows on March 29 by the Department of Water Supply, Gas and Electricity, for making test borings. Section 1, for a proposed pressure tunnel, crossing under the Harlem River, north of Central Bridge; Section 2, for three proposed tunnels, one at Westchester Ave. and Bronx River, and one at River Ave. and New York Central R. R., and one at 135th St. and Mott Haven Canal: Grant Rodgers, 299 Broadway, New York, Section 1, $10,955; Section 2, $16,690.

ROCKVILLE CENTRE (L. I.), N. Y.—The village has voted $7,500 [illegible] improvement of the water system and [illegible]

*WARWICK, N. Y.—[illegible] will be received by C. S. Lazear, Clk [illegible] Water Comrs. until April 21 for repa[illegible] and rebuilding the storage reservoir.

CAMDEN, N. J.—We [illegible] officially advised that the city proposed to [illegible] additions to the water plant. Bids will [illegible] asked in about a month. Estimated [illegible] $100,000. Levi Farnham is City Engr.

JERSEY CITY, N. J.—[illegible] city has been granted permission by the State Legislature to spend $500,000 for the [illegible] renewal of water pipes. The work will extend over a period of three years.

NEWARK, N. J.—The Common Council is considering an issue of $[illegible] of bonds for the extension of the high pressure water main service, and $50,000 [illegible] bonds for an extension of the street mai[illegible]

*BALTIMORE, MD.—We [illegible] officially advised that bids will be received until 11 a. m., April 26, by the city for [illegible] 30,000,000-gallon, vertical, triple-expansion pump, boilers and other equipment at Mount Royal pumping station. Estimated cost, $175,000. Alfred M. Quick is Water [illegible]

ANDREWS, N. C.—The [illegible] considering an issue of $20,000 of bonds [illegible] water-works, electric lights and street improvements.

RED SPRINGS, N. C.—The city has engaged Gilbert C. White, Durham, N. C., as engineer in charge of construction of the water-works and sewerage system. Surveys are being made. An iron tank [illegible] high, with a capacity of 125,000 gallons will be constructed. Estimated cost, $[illegible]. A. B. Pearsall is Mayor.

COLQUITT, GA.—The citizens have voted to issue $22,000 of bonds for municipal improvements. The money will be used to extend the water system, erect a light plant and a modern school building.

FAIRBURN, GA.—Plans are being prepared by the J. B. McCrary Co., Atlanta, Ga., for the construction of the water system.

FLOWERY BRANCH, GA.—Water-works will be constructed here. Estimated cost, about $6,000. C. R. Parson, Mayor, is interested.

DOTHAN, ALA.—The City Council is considering the construction of a water-works system and an electric light plant. Estimated cost, about $90,000.

✚PATTERSON, LA.—The Board of Aldermen has awarded the contract to KELLY & JONES, of Opelousas, La., for the construction of water-works at about $30,000. Noted on March 16. Fred A. Jones Co. is Engr.-in-Charge, Houston, Tex.

MARYVILLE, TENN.—Plans are being prepared for the construction of a water and sewer system here. Estimated cost, $100,000. W. A. McTeer is City Recdr.

ELYRIA, OHIO.—The Board of Control will soon ask for bids for laying a 16-in. water main from Bond St. to the intersection of Cleveland St. and Abbey Road, a distance of 16,600 ft.; also five tons of lead and 200 ⅝-in. water meters.

LOGAN, OHIO.—The village is preparing to construct a system of water-works. H. [illegible] Vance is Village Engr.

NILES, OHIO.—Bids will be received by the Board of Control until April 18 for the construction of a 3,000,000-gallon water filtration plant.

✚ZANESVILLE, OHIO.—The contract has been awarded by the Board of Control to J. B. CLOW & SONS, 350 Franklin St., Chicago, Ill., for furnishing water pipe and special castings to the Water Department. Estimated cost, $5,000.

FORT WAYNE, IND.—The Board of Public Works is preparing to ask for bids for water meters. Martin Detzer is Supt. W. Wks.

BENTON HARBOR, MICH.—The city is considering the development of a well supply in connection with the water system. A. Johnson is City Engr.

ANNA, ILL.—The citizens have voted bonds for the installation of a water-works system.

CHICAGO, ILL.—Bids will be received until April 7 by the Board Public Works, Charles A. V. Standish, Secy., for constructing water service pipes in West Erie, West 26th, East 63d, West 51st and other streets.

CICERO, ILL.—Bids will be received until 8 p. m., April 11, by the Secretary of the Board of Local Improvements for laying water pipe in 61st Ave. Charles Stoffel is Town Clk.

JOLIET, ILL.—The city is considering laying a 12-in. water main in Chicago St. in plaec of the present 4-in. main. H. A. Stevens is City Engr.

ROCKDALE, ILL.—The village has decided to erect a municipal water plant and lay mains in all the village streets.

✚PRESCOTT, WIS.—We are officially advised that bids were received as follows on March 30 by the city for the construction of a gravity water system: L. W. Schruth, Fargo, N. Dak., $20,700; Pastoret-Lawrence Co., Duluth, Minn., $21,770; Fraser & Danforth, Rochester, Minn., $22,900; W. D. Lovell, Minneapolis, Minn., $19,700; J. P. Nolan, South St. Paul, Minn., $23,335; J. G. Roberson, St. Paul, Minn., $21,933; DES MOINES BRIDGE & IRON CO., Des Moines, Iowa, $19,419 (awarded contract).

BURLINGTON, IOWA.—Bids will be received by the Citizens' Water Co. until April 15 for a direct-connected centrifugal pump and steam turbine, a water-works surface condenser and air pump and a 16-in. Venturi meter, with register and chart recorder. Frank Lawlor is Supt.

✚FORT MADISON, IOWA.—The contract has been awarded to HAGARTY & SCROG, of Keokuk, Iowa, for digging four deep city wells, from which water will be pumped for use in the city instead of from the Mississippi River.

WEBSTER CITY, IOWA.—See item under Light, Heat and Power.

NORTH MANKATO (Mankato post-office), MINN.—The citizens have voted, it is reported, to issue $20,000 of bonds for the construction of a water-works system.

ST. JOSEPH, MINN.—John Lauermann, Village Recdr., will receive bids until 6 p. m., April 11, for 2,162 ft. of c.-i. water pipe and appurtenances, including 1,500 lbs. of pig lead.

BURDEN, KAN.—Plans are being prepared by Rollins & Westover, Consult. Engrs., Beals Bldg., Kansas City, Mo., for the installation of a system of water-works. Estimated cost, $15,000.

CHAPPELL, NEB.—Bids will be received until April 8 by the village for the construction of water-works and an electric light plant. Estimated cost, $12,900. W. E. Donuer, Grand Island, Neb., is Engr.

✚BELLE FOURCHE, S. DAK.—Contracts have been awarded for earthwork on about 22 miles of the North Canal as follows: Schedules 1, 6, 7 and 8, to MANEY BROS. & CO., Oklahoma City, Okla., Class 1, 350,000 cu. yds., 18 cts.; Class 2, 18,000 cu. yds., 45 cts.; Class 3, 4,000 cu. yds., 70 cts.; overhaul, 25,000 cu. yds., 2 cts. Total, $76,400. Schedules 2 and 3, CORNELIUS COLE, Nisland, S. Dak., Class 1, 100,000 cu. yds., 18 cts.; Class 2, 8,000 cu. yds., 18 cts.; Class 3, 3,000 cu. yds., 18 cts. Schedule 3, Class 1, 90,000 cu. yds., 17 cts.; Class 2, 8,000 cu. yds., 17 cts.; Class 3, 1,000 cu. yds., 17 cts.; overhaul, 25,000 cu. yds., 2 cts. Total for 2 and 3, $37,130. Schedule 4, SEITZ & SHEVLING, Nisland, Class 1, 75,000 cu. yds., 19 cts.; Class 2, 10,000 cu. yds., 19 cts.; Class 3, 1,000 cu. yds., 19 cts.; overhaul, 20,000 cu. yds., 2 cts. Total, $16,740. Schedule 5, J. W. McNEILL, North Platte, Neb., Class 1, 90,000 cu. yds., 19 cts.; Class 2, 12,000 cu. yds., 19 cts.; Class 3, 1,000 cu. yds., 19 cts.; overhaul, 20,000 cu. yds., 2 cts. Total, $19,970.

KADOKA, S. DAK.—The citizens have voted $6,700 of bonds for the installation of a water-works system. As soon as bonds are sold work on construction will be commenced.

RAWLINS, WYO.—We are officially advised that surveys are being made by Turpin & Eldridge, Civil Engrs., Rawlins, for extensions and improvements to the water system here. The work will necessitate laying 8,000 ft. of 8-in. mains; the construction of two reservoirs of 100,000 and 500,000 gallons capacity, and the installation of a pumping plant. Plans and specifications will be ready and bids asked about June 1. Estimated cost, $38,000.

✚ST. IGNATIUS, MONT.—The Secretary of the Interior has awarded the contract to the BUCYRUS CO., of South Milwaukee, Wis., for furnishing a steam shovel for use on the Flathead Irrigation Project, Mont., at $6,965.

MOBERLY, MO.—Bids will be received by the Board of Public Works until 4 p. m., April 20, for the extension and improvement of the water-works system. Plans may be seen at the office of the Board and at the office of Rollins & Westover, Consult. Engrs., Beals Bldg., Kansas City, Mo.

PACIFIC, MO.—Plans will be prepared by the Fuller-Coult Co., Consult. Engrs., St. Louis, Mo., for the construction of water-works.

FORT SMITH, ARK.—The city has sold bonds for $750,000 for the purchase of the water plant. M. H. Reed is City Engr.

BRADY, TEX.—The city has voted $40,000 of bonds for the construction of water-works, with a capacity of 250,000 gallons. It has also been decided to install a filter plant, pumping station and to construct three dams, two to cost $7,000 each. J. B. Hawley, Fort Worth, Tex., is Engr.

CHAPIN, TEX.—D. B. Chapin, of Chapin, has been investigating the situation along Devil's River in Western Texas, with the view of constructing one or more large dams across the canyon of that stream and reclaiming several thousand acres of land by irrigation. His plans contemplate the construction of large canal systems and the installation of pumping plants.

✚DALLAS, TEX.—The City Commissioners have awarded the contract for the standpipe for the White Rock line in the water main from the new pumping station, to the MEMPHIS STEEL CONSTRUCTION CO., at $5,727.

DAWSON, TEX.—J. F. Williams will install a water-works plant and a distributing system here. Estimated cost, about $15,000.

FORT SAM HOUSTON, TEX.—Bids were received on March 21 by the Construction Quartermaster, U. S. A., for a pumping engine, triple expansion, 1,000,000 gallons in 24 hours. The only bid was submitted by A. M. Lockett & Co., New Orleans, La.

FORT STOCKTON, TEX.—The United States & Mexican Trust Co., of Kansas City, Mo., is preparing to colonize and place under irrigation 22,000 acres of land in the Imperial Valley, 50 miles from here, on the line of the Kansas City, Mexico & Orient R. R. Irrigating pumping machinery will be installed and other improvements made.

HEARNE, TEX.—The city is considering the installation of a water-works plant and distributing system.

✚JACKSBORO, TEX.—The City Council has awarded the contract to the W. C. SHAW CONSTRUCTION CO., of Lawton, Okla., for constructing water-works at $24,960. The contract includes power-house, standpipe, four miles of water mains, fireplugs, etc.; N. Werenskiold is Engr., Dallas, Tex.

*LUFKIN, TEX.—We are officially advised that all bids opened on March 24 have been rejected by the city for return tubular boilers, boiler feed pumps, compound duplex pumps, etc. New bids on different equipment will be received until April 17.

SHERMAN, TEX.—We are officially advised that the city will improve and extend the water mains and also install new engines and appurtenances at the water plant. Estimated cost, $22,000. P. C. Thurmond is City Engr. Noted on March 23.

ADA, OKLA.—Bids will be received until 8 p. m., April 10, by W. B. Jones, City Clk., for furnishing pipe and machinery for the extension and improvement of the water-works system.

BOSWELL, OKLA.—See item under Light, Heat and Power.

EL RENO, OKLA.—Plans have been completed by Burns & McDonnell, Scarritt Bldg., Kansas City, Mo., for the construction of water-works and electric light improvements. Contracts will probably be awarded soon. Estimated cost, about $65,000.

BURLEY, IDAHO.—We are officially advised that Louis C. Kelsey, Civil and Hydraulic Engr., 402 Dooly Bldg., Salt Lake City, Utah, has submitted a report and recommendations to the Mayor and City Council of Burley, for the construction of a water-works system. It is proposed to obtain the water supply from wells and pump into a steel tower tank. Estimated cost, $45,811. Noted on March 2.

TROY, IDAHO.—The city has voted $12,000 of bonds for the installation of water-works.

OGDEN, UTAH.—Bids have been submitted as follows to the city for concreting city reservoir No. 1: Moran Contracting Co., $14,598; McKay & Reed, $15,798; J. P. O'Neill Construction Co., $17,277; Gillis Construction Co., $17,698; Lynch-Cannon Engineering Co., $17,746; Wheelwright Construction Co., $18,763; William Doyle, $19,679.

CARSON CITY, NEV.—Bids will be received until 2 p. m., April 12, by the U. S. Reclamation Service, Federal Bldg., Los Angeles, Cal., for hydraulic turbines for Truckee-Carson Project, Nevada.

Bids will also be received, same place, until 2 p. m., April 17, for furnishing a 72-in. penstock for the Truckee-Carson Project, Nevada.

BISBEE, ARIZ.—The City Trustees will soon award the contract for drilling wells and constructing a large pumping plant. Considerable canal work will also be constructed. Harry E. Blake, Los Angeles, Cal., is Surv.

PARKER, ARIZ.—A. J. Casebeer, 383 South Catalina Ave., Pasadena, and associates have formed a corporation for the purpose of constructing a concrete reservoir and dam near Parker. The dam will be 1,150 ft. long. The main canal (for irrigation) will be 75 miles long.

SNOHOMISH, WASH.—We are officially advised that bids were received as follows on March 21 by the city for the construction of a gravity water system: J. A. Shepard, $96,700; Atlas Construction Co., Everett, Wash., $83,250; American Light & Power Co., $92,940; G. Jaeger, $88,100; Jacobson & Bowder, $96,300.

M'MINNVILLE, ORE.—The citizens on March 20 voted to issue $70,000 of bonds for improvements to the water system in the proposed street paving district.

CORNING, CAL.—Bids will be received in about two weeks for the construction of a water-works and sewer system. Estimated cost, about $68,000. W. F. Lunning, Red Bluff, Cal., is Engr.

KINGSBURG, CAL.—The contract has been awarded by the City Trustees to BRAUN, WILLIAMS & RUSSELL, Redondo Beach, Cal., for the installation of the municipal water-works system, at about $25,000. List of bidders noted on March 30.

LIVERMORE, CAL.—Bids will be received by John P. Cook, Clk. Bd. of Supervisors of Alameda County, until 10 a. m., April 10, for the construction of a water plant on County Road No. 1408, in Murray Road District, Murray Township.

ONTARIO, CAL.—R. O. Breckenridge, Town Clerk, will receive bids until 7.30 p. m., April 10, for the construction of three reservoirs for domestic water system. Separate bids will be received for roofs and for reservoirs complete, excepting roofs. Plans may be secured from the Town Clerk, or at the office of F. E. Trask, Homer Laughlin Bldg., Los Angeles. Noted on March 30.

ONTARIO, CAL.—Bids have been received as follows by the City Trustees for the construction of a pumping plant for the municipal water system: The Fairbanks, Morse Co., Los Angeles, $22,180, including building; Pacific Coast Mfg. Co., $30,422 for plant consisting of 250-HP De La Vergne, crude oil engine, air compressor, triplex pump, etc.; Pomona Mfg. Co., $15,004, for a gas engine plant to lift 100 miner's ins. 6 ft. above wells; also to install an electric power plant, including two 75-HP., $12,946; Smith, Booth, Usher Co., four bids, ranging from $3,365 to $4,773 for a plant to lift water from pumping plant to reservoir; George E. Dow Pumping Engine Co., same plants, for $3,715 to $5,100. F. E. Trask is Engr., Laughlin Bldg., Los Angeles, Cal.

SAN FRANCISCO, CAL.—Marsden Manson, City Engr., has prepared plans for and bids will be asked soon for the construction of Section A and Section B of the intake tunnel for the Townsend St. pumping station for auxiliary water supply for fire protection.

✚SAN JACINTO, CAL.—The contract has been awarded to HERBERT MORGAN, Hemet, Cal., for laying 30,000 ft. of cement pipe for the Citizens Water Co., of San Jacinto, and for constructing a cement reservoir, using the K. T. pressure system.

SCOTSTOWN, QUE.—We are officially advised that the city is preparing for the construction of water-works and sewer systems. For further information address L. A. Dufresne, Surv. and Consult. Engr., Sherbrooke, Que.

HARRISTON, ONT.—Bids will be received until April 13 for c.-i. pipe, hydrants, valves, lead and a water tower. Bowman & Connor are Consult. Engrs., Berlin, Ont.

✚TORONTO, ONT.—The city has awarded the contract to the CANADA FOUNDRY CO. for 20-in. c.-i. water piping at $39.95 per 12-ft. length.

C. H. Rust, City Engr., reports that the cost of the proposed visible water supply from Lake Simcoe would be about $18,000,000.

✚BRANDON, MAN.—The city has awarded the following contracts for supplies for the Water-Works Department: To JAMES ROBERTSON & CO., Winnipeg, Man., for head-pipe, at $4.86 per 100 lbs., pig lead at $4.05 per 100 lbs.; JOHNSTOWN & CO., Brandon, brass goods, Mueller manufacture.

✚SOURIS, MAN.—The city has awarded the following contracts: To M. S. HOLMES, Portage la Prairie, Man., for laying water mains, at $39,000; to KITCHEN BROS., Souris, for power-house, at $3,200.

Bids will be received until 8 p. m., April 10, by J. W. Beakey, Secy.-Treas., for two gasoline or oil engines, two pumps, duplex, triplex or turbine, two compression tanks and air compressor with all necessary fittings.

WINNIPEG, MAN.—Bids will be received until 11 a. m., April 13, by Magnus Peterson, Secy. Bd. of Control, for the supply of a number of 5/16-in. valves for the Water Works Department. H. N. Ruttan is City Engr.

*PENTICTON, B. C.—Bids will be received until May 15 by the Municipal Council at the office of F. E. Tily, Municipal Clk., for the construction of infiltration chambers, reservoir, works, and excavation for and laying pipe for a water-works system.

Bids will also be received until May 1 for material for the above, including pipe, hydrants, valves, etc. For details see advertisement in this issue.

VANCOUVER, B. C.—Bids will be received until 4 p. m., May 31, by William McQueen, City Clk., for the supply of a quantity of steel pipe and c.-i. pipe; also for 18-in. flexible joint c.-i. pipe.

SEWERS.

*(*Denotes that this work is advertised in Engineering News.)*

*ATTLEBORO, MASS.—Bids will be received by the Committee on Sewerage until 3 p. m., April 17, for furnishing cast-iron pipe and special casting. Charles S. Holden, M.D., is Chn.

Bids will be received at the office of the Committee on Sewerage until 3 p. m., April 17, for furnishing manhole collars and covers.

PALMER, MASS.—This town has made an appropriation for the construction of sections of a sewer system near the Carpet and Wire Mills, and also other parts of the town. Information may be obtained from First Selectman.

NEW HAVEN, CONN.—Bids for the construction of sewers in Market St., Judson Ave. and Clinton Ave. will be received until April 11 by C. W. Kelly, City Engr. Plans and specifications may be obtained at the office of the Engr.

✚*PUTNAM, CONN.—Bids were received as follows on March 24 by the City Council for the construction of sewers, including the following: Approximately 600 ft. of 24-in. pipe, 300 ft. of 20-in. pipe, 1,080 ft. of 15-in. pipe, 600 ft. of 12-in. pipe, 1,700 ft. of 10-in. pipe, and 7,900 ft. of 8-in. pipe. Perossi Co., $11,574; W. J. McCarty Co., $13,067; H. M. Cussack Co., $12,039; L. A. Taylor, $16,046; M. J. O'Hearn, $15,473; L. Yadisernia & Co., $14,930; Pierson Engineering & Construction Co., $11,384; E. B. Rohertz, $10,813; Sylvester & Quinn, $1,202; W. B. Bryne, $13,866; C. H. Slucomb, $10,811; George Phillips, $15,817; Connecticut Construction Co., $11,815; R. F. Whipple & Co., $12,791; F. Williams, $11,115; Iniffi & White, $13,205; Eudine Bros., $94,138; F. H. Gilbert, $12,788; L. Perillo & J. Covring, $20,221; Lopardo & Way, $19,855; Field, Barker & Underwood, $11,275; A. Vito Construction Co., $12,179; H. F. Redden Construction Co., $12,757; F. A. Davis, $13,182; C. E. Trumbull Co., $11,120; Thomas Burns, $14,885; George M. Bryne, $13,352; Frank H. Cowan, $11,853; J. B. O'Rourke, $12,085; Argeto Construction Co., $16,883; Henry Spinach, $13,425; F. H. GAMMINO, $9,916 (awarded contract).

✚STAMFORD, CONN.—The contract for construction of the West Side sewer has been awarded to FRANK PALMER, Stamford, Conn., at $45,543.

STONINGTON, CONN.—Preliminary surveys and plans are being made by Daboll & Crandall, New London, Conn., for a new sewer system here.

BUFFALO, N. Y.—The City Council has ordered the construction of a 10-in. tile sewer in the northwest side of Main St., between Homeworth and University Aves., and directed the Comrs. of Public Works to advertise for bids.

BUFFALO, N. Y.—Bids will be received by the Department of Public Works, Francis G. Ward, Commissioner, until April 15 for 18, 15, 12 and 10-in. tile sewer in south side of Kenmore Ave., between Elmwood Ave. and Eugene St., and 10-in. tile sewer in Nebraska, Calvin, Amos and Orson Pls., between Kenmore Ave. and their southerly ends, and in west side of Eugene St., between Kenmore Ave. and 185 ft. southerly; also 24-in. brick sewer in south side of Sessions Ave., between Delaware Ave. and 900 ft. east, and 10-in. tile sewer in Markham, Hoyer and Medford Pl., between Sessions and Villa Aves.

NEW YORK, N. Y.—Bids will be received by Michael J. Drummond, Comr. Dept. of Public Charities, until April 13, for furnishing all the labor and materials required for the construction of sewers and sewage disposal plant for the Sea View Hospital, at the New York City Farm Colony, Boro. of Richmond, New York.

YONKERS, N. Y.—Board of Contract and Supply, James V. Mahony, Secy., received the following bids for a sewer in Alexander St., between Ashburton and Wells Aves.: McDonald & Murray, $4,658; Nicholas Mangini, $5,075; Joseph Cuzzo, $4,743; Thomas Grady, $4,750; Frank Cianfaglione, $4,850; O'Rourke Contracting Co., $4,094. Contract awarded to O'ROURKE CONTRACTING CO. Board will receive bids until April 24 for sewer in Van Buren St., between Prescott and Lincoln Sts.

✚*BRIDGETON, N. J.—Bids were received as follows on March 7 by the City Council, Jacob B. Jones, Clk., for furnishing all material and doing all work necessary to complete the construction of a sewerage disposal works and pumping station: T. J. McGOVERN, $20,770 (awarded contract); Hard & Worm, $22,364; Bond & McNalley, $22,826; Barber & Perrin, $23,443; J. W. Heller, $23,489; B. F. Sweeten & Son, $25,682.

✚VALLEY CAMP, PA.—The contract for constructing the sewage disposal plant for Valley Camp, Pa., has been awarded to the PITT CONSTRUCTION CO., Pittsburg, Pa. Work will be begun soon. Chester & Fleming are Engrs., Union Bank Bldg., Pittsburg, Pa., and have charge of the work.

EASTON, MD.—Bids will be received until noon, April 15, by the Sewer Commission for labor and materials necessary to construct about six miles of pipe sewers from 8 to 15 ins. in diameter, with Y branches, manholes, flush tanks and other necessary appurtenances; also two disposal plants, including necessary piping, grading, etc. Plans and specifications may be obtained at office of Mayor, or at office of Clyde Potts, 30 Church St., New York.

TOWSON, MD.—Bids will be received until April 6 by Henry G. Shirley, County Roads Engr., for the construction of a sewer from Baltimore and Third Sts., to Fayette St.

ROCK HILL, S. C.—The construction of a sewerage system and extensions are planned here. The estimated cost is $150,000. Thos. W. Cathran, Rock Hill, is Engr. E. L. Barnes is City Clk.

CAMILLA, GA.—An ordinance has been passed by the City Council authorizing an election for the purpose of issuing bonds for $20,000 for improvement to sewerage system.

✚JACKSONVILLE, FLA.—THE REINFORCED CONCRETE CULVERT PIPE CO., Jacksonville, Fla., has secured contract to furnish all the reinforced-concrete pipe for Hollowman St. and Highway Ave. storm sewers. F. W. LONG & CO., Jacksonville, are general contractors. R. N. Ellis is City Supt.

NEW DECATUR, ALA.—An ordinance has been passed for the construction of sewers in East New Decatur; also for constructing concrete sidewalks on Moulton St., Grant St. and Sixth Ave.

MERIDIAN, MISS.—Bids will be received until April 7 for labor and material necessary to construct a concrete storm sewer in 26th Ave., between D and A Sts., and on A St., between 26th and Rubush Aves. W. G. Wetmore is City Engr.

MARYVILLE, TENN.—See item under Water Supply—Irrigation.

MADISONVILLE, KY.—This city is considering the construction of a disposal plant and about eight miles of sanitary sewers. Alvord & Burdick, Hartford Bldg., Chicago, Ill., are preparing the plans.

BEREA, OHIO.—Bids will be received by O. R. Stone, Village Clk., until April 24, for the construction of a sewer on Waite St., with all appurtenances.

DAYTON, OHIO.—Bids will be received until April 17 by William A. Budroe, City Clk., for the construction of sanitary sewers in various streets. Noted on March 23.

FREMONT, OHIO.—Bids will be received by the Department of Public Service until May 1 for the construction of 700 ft. of tile sewer in Linden St. C. F. Bell is City Audr. W. F. Scheflin is City Engr.

DELAWARE, OHIO.—Bids will be received by the Board of Public Service until April 11 for the construction of two blocks of 8-in. vitrified tile sewer in Blymer St., and 1,200 ft. of 8-in. vitrified tile sewer in Liberty and Lincoln Sts. S. Potter is Clk.

ANDERSON, IND.—Plans are being prepared for the construction of an 8-ft. sewer from the center of the city 1½ miles south. Estimated cost, $100,000.

MT. VERNON, IND.—Bids will be advertised about May 1 for a storm sewer. Approximate cost, $5,000. John Schulthees is City Clk. G. W. Sarlls is City Engr.

MUNCIE, IND.—Bids will be received until April 8 by the Common Council for the construction of a local sewer in Howard St. from the manhole in the intersection of Howard and Franklin St., and running thence east in said Howard St. with the center line of Howard St. to within 70 ft. of the west line of High St. and emptying into the Franklin St. sewer No. 1, known and called Howard St. Sewer No. 3. John R. Kelly is City Clk.

ALLEGAN, MICH.—Bids will be received by the Board of Public Works at office of John W. Peet, City Clk., until 8 p. m., April 21, for the construction of the Depot Hill sewer.

BLOOMINGTON, ILL.—Bids will be received at office of Melluish & Broyhill, Engrs., 222 Unity Bldg., until April 14, for the construction of various tile drains, eight miles north of Geneseo.

*FREEPORT, ILL.—Bids will be received by the Board of Local Improvements until noon, April 14, for the construction of two sanitary sewer systems. For details, see advertisement in this issue. J. A. R. Daniels is City Engr.

MATTOON, ILL.—Bids will be received by the Drainage Commissioners of Shellhammer Mutual Drainage District, at law offices of James W. Craig, until 10 a. m., April 15, for the installation of a main drain tile with three lateral drains.

MILWAUKEE, WIS.—Harry E. Briggs, Comr. Pub. Wks., will receive bids until April 6 for constructing the following house

drains, sewer and water service connections: Menominee St., from Broadway to Jackson St.; Mitchell St., from Eighth Ave. to Muskego Ave.; Center St., from Richards St. to Humboldt Ave.; Holton St., from North Ave. to Hadley St.; Lee St., from Holton St. to Humboldt Ave.; Bellevlew Pl., from Bartlett St. to Cramer St.; Farwell Ave., from Park Pl. to Belleview Pl.; Park Pl., from Oakland Ave. to Downer Ave.

HUMBOLDT, KAN.—The City Council has passed an ordinance for the purpose of creating a sewer district to cover the business section of the town. Estimated cost, about $20,000.

LUSK, WYO.—Bids will be received by D. E. Goddard, Town Clk. until 8 p. m., May 1, for the construction of sewerage. Plans, etc., at office of Town Clk.

ST. JOSEPH, MO.—Bids will be received by the Board of Public Works until April 15 for 36-in. vitrified pipe main sewer in 18th St. extension of Upper Whitehead main sewer. Contract will also be let this spring for the construction of a vitrified pipe and 4-ft. concrete pipe main sewer in Fifth Ave. to cost $7,000. J. P. Strite is Secy.

PULASKI HEIGHTS, ARK.—The City Council is considering the sewerage system and giving a drainage into the Arkansas River below the pumping station.

TEXARKANA, ARK.—Plans are being prepared by A. B. Matson, Texarkana, for the construction of sewers to cost $14,000.

DENVER, COLO.—The construction of lateral sewers in Sub-District No. 3 is contemplated. The estimated cost is $122,319. J. B. Hunter is City Engr.

FORT LOGAN, COLO.—The following bids were received by Capt. Charles Doster, Constr. Q. M., U. S. A., for the construction of a sewer system and disposal works: C. I. Lamble, Pittsburg, Pa., three-phase disposal works (3-in. c.-i.), $30,000. William Hamilton, Des Moines, Iowa, sewer system (concrete), $14,834, (wood), $14,434; disposal works (3-in. c.-i.), $21,303. The Morrison Contracting & Mfg. Co., Denver, Colo., sewer system (concrete), $15,500, (wood), $15,460; disposal works (4-in. c.-i.), $21,260, (3-in. c.-i.), $21,170, (3-in. g.-i.), $21,080. The National Construction Co., recommended for award, Denver, Colo., sewer system (concrete), $10,676, (wood), $10,127; disposal works (4-in. c.-i.), $19,787, (3-in. c.-i.), $19,794, (3-in. g.-i.), $19,573. Peter O'Brien, Denver, Colo., sewer system (concrete), $8,430, (wood), $9,315; disposal works (4-in. c.-i.), $24,266, (3-in. c.-i.), $24,266, (3-in. g.-i.), $14,533. E. M. Ely, Wichita, Kan., $39,000 for the entire job.

CORNING, CAL.—See item under Water Supply—Irrigation.

✚FRESNO, CAL.—W. S. DUNLEAVY has been awarded the contract by Jos. House for construction of five miles of outfall sewer at $37,900.

LEAMINGTON, ONT.—Bids will be received until April 8 for constructing an outlet drain in Malden Township. Alex. Baird, C. E., is Comr.-in-Charge.

NORTH TORONTO, ONT.—The taxpayers have passed a by-law to expend $165,500 for a sewerage system.

EDMONTON, ALTA.—Bids will be received until 3 p. m., April 17, by the City Comrs. for the supply of sewer pipe and fittings according to specifications, which may be seen in the office of the City Engineer.

✚SOURIS, MAN.—Bids were received on March 20 for the installation of sewer. The contract has been awarded to M. S. HOLMES, Portage La Prairie, Man. V. H. Williams is City Engr.

✚EBURNE, B. C.—KILBER & MOORE, Eburne, have been awarded a contract in connection with the $145,000 sewerage and water-works system to be installed here.

GARBAGE DISPOSAL.

(✚ Denotes a contract awarded.)

BOSTON, MASS.—Bids will be received by Louis K. Rourke, Comr. Pub. Wks., for the disposal of refuse in the city proper, Charlestown, South Boston, Roxbury, Dorchester and Brighton Districts for a term of ten years from Jan. 1, 1912, until April 24.

Contracts for watering and oiling streets were awarded on March 23 as follows: South Boston and Dorchester North, to FRANK E. WILSON, at $4.88 for 2-horse hitch; Thomas F. Lynch, $5; John H. Finsloe Contracting Co., $4.94 on 2-horse and $6.49 on 3-horse hitches; Hugh Nawn Contracting Co., $5.15 and $8 on 2 and 3-horse hitches, respectively. Charlestown, to J. P. O'RIORDEN, for 2-horse hitch, $5.40; Hugh Nawn Contracting Co., $5.75 for 2-horse and $8 for 3-horse hitches. Brighton, to JOSEPH McGREEVEY, at $5.35 for 2-horse and $6.50 for 3-horse hitches; Hugh Nawn Contracting Co., $5.75 for 2-horse and $8 for 3-horse hitches; John Kelley, 2-horse, $5.45; Joseph Sprissler, $5.50. West Roxbury, to M. McGINNIS & CO., at $5; Joseph Sprissler, $5.50; John Kelley, $5.45, on 2-horse hitch; Hugh Nawn Contracting Co., $5.15 on 2-horse and $8 on 3-horse. Dorchester and Ashmont, to JOHN H. WINSLOE CONTRACTING CO., $4.84 on 2 and $6.49 on 3-horse hitches; John J. Loonie, $5.30; Joseph Sprissler, $5.50; Hugh Nawn Contracting Co., $5.15 on 2 and $8 on 3-horse hitches. Roxbury South and Jamaica Plain, to JAMES E. NOBLE, $5; John Kelley, $5.25; Joseph Sprissler, $5.25 on 2-horse hitch; Hugh Nawn Contracting Co. $5.25 on 2 and $8 on 3-horse; J. McGreevey, $5 on 2-horse and $6.50 on 3-horse hitches. South End and Roxbury North, to JOSEPH SPRISSLER, $4.85; N. McCabe & Son, $4.98; John Kelley, $5.45, on 2-horse hitch; Hugh Nawn Contracting Co., $5.25 on 2 and $8 on 3-horse; James E. Noble, $5.10 on 2 and $6.50 on 3-horse; Joseph McGreevey, $4.95 on 2 and $6.50 on 3-horse hitches. North and West Ends and Back Bay, to WILLIAM GILLIGAN CO., $5 on 2 and 3-horse hitches; John T. Keough & Bro., $4.85 on 2 and $6.75 on 3-horse; Hugh Nawn Contracting Co., $5.25 on 2 and $8 on 3-horse; Joseph McGreevey, $5.25 on 2 and $6.50 on 3-horse hitches. Louis K. Rourke is Comr. Pub. Wks.

BUFFALO, N. Y.—The Department of Public Works opened bids on March 27 for the 40-ton 3 grate refuse destructor and accessories which it is intended to build at the utilization plant at Hamburg and Scott Sts. The Destructor Co. was the low bidder, at $14,775.

NEW YORK, N. Y.—Bids for constructing garbage crematory and dock at U. S. Immigration Station, Ellis Island, New York Harbor, were received by William Williams, Comr., on March 23, as follows: Morse-Boulger Destructor Co., 39 Cortlandt St., New York, $12,875; North Eastern Construction Co., Brunswick Bldg., New York, $13,940; Raymond Concrete Pile Co., 90 West St., New York, $13,900; McHarg, Barton Co., 165 Broadway, New York, $15,424.

PATERSON, N. J.—The Board of Public Works on March 28 decided in favor of the destructor system of garbage disposal. Estimated cost, about $160,000. H. J. Harder is City Engr.

✚CARNEGIE, PA.—The contract for the collection, hauling, removal and disposal of garbage has been awarded to W. H. PROSSER, of Carnegie, at $4,200 per year. The contract is for a period of three years. Bids were opened on March 24.

DETROIT, MICH.—The city is contemplating a new garbage disposal plant, it is reported. J. J. Haarer is Comr. Pub. Wks.

PASCO, WASH.—Bids will be received by the City Council until April 18 for furnishing two street sprinklers and one flusher.

MOOSE JAW, SASK.—The city has voted $50,000 for an incinerator.

STREETS AND ROADS.

*(*Denotes that this work is advertised in Engineering News.)*

BOSTON, MASS.—Bids will be received by Louis K. Rourke, Comr. Pub. Wks., until April 10, for constructing artificial stone sidewalks in Greenwood St., and until April 11 for similar work in Newhall St. and Intervale Ave., Dorchester.

Bids will be received by the State Highway Comn., Harold Parker, Chn., on every Tuesday, commencing April 4, for constructing from two to five miles of highway. The work is as follows: Abington: Beginning at the Weymouth line and extending southerly on Bedford St. Agawam: Beginning at the end of the present State highway and extending southerly to the Connecticut line. Ashburnham: Road between the Ashby line and the New Hampshire line. Ashby: For constructing gap of about three-quarters of a mile between the two sections of existing State highway on the road leading to Townsend. Barnstable: Beginning at the easterly end of the 1910 layout and extending easterly. Bernardston: Beginning at the Falls River Bridge and extending easterly to Church St. to or toward the Gill line. Bourne: Beginning at the end of the present State highway and extending southerly to the Falmouth line. Charlton: Beginning at the end of the 1910 layout and extending toward the village. Chelmsford: Beginning at the end of the 1908 layout and extending westerly toward Westford. Chester: For constructing the gap between the two sections of State highway now existing. Chilmark: Beginning at the end of the existing State highway and extending northeasterly to the West Tisbury line. Dighton: Beginning at the end of the 1908 layout and extending southerly on Somerset Ave. Erving (East): Beginning at the end of the 1898 layout and extending westerly. Granby: Beginning at the end of tht 1908 layout and extending easterly toward Belchertown. Hatfield: Beginning at the end of the 1910 layout and extending to the Whately line. Holliston: Beginning at the Ashland line and extending southerly. Ipswich: Beginning at the end of the 1910 layout and extending southerly. Lakeville: Beginning at the end of the 1910 layout and extending northwesterly. Lanesboro: Beginning at the Cheshire line and extending towards Pittsfield. Lee (East): Beginning at the end of the 1910 layout and extending easterly toward Becket. Marlboro: Beginning at the end of the existing State highway on the Hudson road and extending southerly. Mashpee: Beginning at the Falmouth line and extending northeasterly to or toward Pine Tree Corner, so-called. North Andover: For filling the gap between the two 1907 layouts on Osgood and Centre Sts. Northboro (East): Beginning at the end of the existing State highway and extending westerly. North Reading: For filling the gap between the two sections of State highway at the grade crossing recently abolished. Pepperell: Beginning the end of the existing State highway and extending northwesterly. Plainville: Beginning at the end of the 1895 layout and extending to the North Attleboro line. Plymouth: Beginning at the end of the present State highway and extending southerly. Salisbury: Beginning at the Amesbury line and extending easterly. Seekonk: Beginning at the end of the 1910 layout and extending southeasterly. Sterling: Beginning at the end of the 1898 layout and extending southerly toward West Boylston. Swansea: Beginning at the end of the 1910 layout and extending westerly. Townsend: For constructing a concrete bridge and approaches between the two sections of State highway laid out in 1907. Tyngsboro: Beginning at the end of the 1910 layout and extending northwesterly. Webster: Beginning at the Oxford line and extending toward Webster Village for the distance of about 4,300 ft. Wilmington: Beginning at the end of the 1910 layout and extending southerly to the Woburn line.

✚BROOKLINE, MASS.—We are officially advised that bids for repairing and constructing sidewalks were received on March 27, as follows: LOUR ARMINGTON CO., $7,010 (awarded contract): John A. Moore, $7,290; W. A. Murtfeldt Co., $7,810; Simpson Bros. Corporation, $8,280.

HOLYOKE, MASS.—Bids will be received by John F. Sheehan, City Clk., until April 7 for furnishing curbing, cement, coal and trap rock.

NEWPORT, R. I.—Bids were received, as follows, on April 1, by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for road work at the United States Naval Station, Narragansett Bay, Newport, R. I.: Darling & Slade, Newport, R. I., macadam road, $1.40 per sq. yd.; cobblestone gutter, 12 cts. per lin. ft.; catch basin and drainage pipe, $20; granolithic walk, $1.75 per sq. yd.; concrete curb, $1 per lin. ft.; resurfacing macadam road, $45 cts. per sq. yd. Joseph P. Cotton, Newport, R. I., $1.18; 18 cts.; $23; $1.44; $1; 27 cts. R. L. Whipple & Co., Worcester, Mass., $1.36; 5½ cts; $14.96; $1.57; 94 cts.; 21 cts.

HARTFORD, CONN.—Bids will be received by the Board of Cpntract and Supply until 11 a. m., April 11, for laying asphalt pavement on concrete base as follows: 4,000 sq. yds. on Farmington Ave., 4,300 sq. yds. on Sheldon St., 3,000 sq. yds. on Main St., 6,800 sq. yds. onCapital Ave.; also for furnishing and installing 200 lin. ft. of new granite headers on Farmington Ave. and 150 lin. ft. on Sheldon St. James Buths is Secy. of Board.

NEW ROCHELLE, N. Y.—Hugh H. Harmer, Corporation Counsel, has been directed by the Common Council to institute condemnation proceedings for the acquisition of property necessary for widening North Ave. from Garden St. to Winyah Ave.

NEW YORK, N. Y.—See item under Miscellaneous Contracts.—Road Oil.—New York, N. Y.

NEW YORK, N. Y.—Bids will be received by Alfred E. Steers, Pres. Boro. Brooklyn, until 11 a. m., April 12, for regulating, grading, curbing, paving with asphalt on a concrete foundation, and constructing sidewalks on various streets. Blank forms and further information may be obtained at the office of the Bureau of Highways, Municipal Building, the Borough of Brooklyn.

✚NEW YORK, N. Y.—A correction.—We are advised that the contract for supplying 10,000 cu. yds. of Hudson River road gravel was awarded, by the Park Board, to JOHN J. FLEMING, 38 Park Row, at $1.89½ per cu. yd. The contract for 5,000 cu. yds. of gravel for the Borough of the Bronx was awarded to HENRY STEERS, 17 Battery Pl., at $2.08 per cu. yd.

✚NEW YORK, N. Y.—We are officially advised that the contract for paving, widening and curbing 23d St. has been awarded to the REPUBLIC CONSTRUCTION CO., 18 Broadway, New York, at $118,448. The other bidders were: Barber Asphalt Paving Co., $121,686; U. S. Wood Paving Co., $119,275; Mack Bros., $140,257.

ROCHESTER, N. Y.—The lowest bid received by the Board of Contract and Supply for constructing sheet asphalt pavement on St. Paul St. was submitted by Whitmore, Rauber & Vicinus, at $83,398. The other bidders were: H. N. Cowles, $84,765; Julius Friderich Co., $89,350; Rochester Vulcanite Pavement Co., $83,995.

*SENECA FALLS, N. Y.—Bids will be received by John M. Guin, Clk. Bd. of Trustees of the Village of Seneca Falls, until 2 p. m., May 4, for paving Main and Bayard Sts. The work will include: 12,500 cu. yds. of excavation, 17,000 lin. ft. of curbing, 15,000 lin. ft. of 3-in. drain tile; 5,000 lin. ft. of vitrified pipe, 42 catch basins; 25,000 sq. yds. of brick or macadam pavement. Plans and specifications are on file with J. W. Brennan, Vil. Engr.

✚UTICA, N. Y.—The Board of Contract and Supply has awarded to JOHN R. BAXTER, at $21,318, the contract for paving with vitrified brick, North Genesee St., from the overcrossing to the city line.

YONKERS, N. Y.—John A. Brady, Comr. Pub. Wks., has recommended to the Common Council that it order the relaying of the asphalt pavement on Riverdale and Woodworth Aves. and South Broadway. Estimated cost, $40,000.

MORRISTOWN, N. J.—Bids will be received by the Township Commission of Chester Township until April 24 for constructing macadam roads on Central Ave. and North Church Road. William B. Lippincott is Chn. Comn.

NEWARK, N. J.—Bids will be received by the Board of Street and Water Commissioners until 3.15 p. m., April 13, for laying approximately 116,980 sq. yds. of pavement on a 6-in. concrete foundation, on various streets. M. R. Sherrerd is City Engr.

SOHO (Newark post-office), N. J.—Bids will be received by the Building Committee of the Board of Chosen Freeholders of Essex County, at Newark, until April 7, for grading and seeding grounds and constructing walks and drives at the Isolation Hospital at Soho.

WASHINGTON, N. J.—Bids will be received by the Board of Chosen Freeholders of Warren County until April 17, for macadamizing Washington, Asbury and Imlaydale roads, a total of 6½ miles.

*WEST NEW YORK (Weehawken post-office), N. J.—Bids will be received at the office of the West New York Improvement Co., 112 North Broad St., Philadelphia, Pa., at 10 a. m., April 19, for furnishing all the material and labor required for grading and constructing streets and sidewalks upon the property of the West New York Improvement Co., in the Town of West New York, in accordance with plans and specifications on file at the Philadelphia office of the company, or at the office of the Engineer, Oro J. Darling, 17th St. and Bergenline Ave. West New York.

INGRAM (Pittsburg post-office), PA.—Bids will be received by D. H. Hainer, Boro. Clk., until 7.45 p. m., April 8, for paving, grading and curbing Hodgson Ave., from Dallas Ave. to Charleston St.

ETNA (Pittsburg post-office), PA.—Bids will be received by J. C. Armstrong, Boro. Clk., until 5 p. m., April 10, for grading and paving Short, Spruce [illegible] and Maple Alleys, according to plans [illegible] with Borough Clerk.

PHILADELPHIA, PA.—Bids will be received by George R. Stearns [illegible] Pub. Wks., until 2 p. m., April 10 [illegible] resurfacing Spring Garden St., between [illegible] and 25th St., with refined asphalt, and [illegible] adjacent to rails with new Eastern [illegible] block upon cement concrete foundation. The approximate amount of work [illegible] done is 14,000 sq. yds, of asphalt [illegible] and 1,700 sq. yds. of new granite [illegible] repaving.

✚PITTSBURG, PA.—Contracts for street work have been awarded as [illegible]: To the PITTSBURG AMACITE CO. [illegible] furnishing amacite to be delivered on [illegible] and Clinton, the Dairy Farm and [illegible] extension roads. To the STANDARD [illegible] LITHIC CO., for delivery of amacite [illegible] Washington pike, Mount Lebanon [illegible] extension road, the Monongahela City [illegible] Elizabeth road, and the Butler pike. [illegible] PITTSBURG BITUMINOUS ENGINEERING CO., for furnishing 15,000 tons of [illegible] and screenings, at $1.75 a ton, [illegible] by the Pennsylvania R. R., and at $[illegible] delivered by the Pittsburg & Lake [illegible] R. R. To the C. P. MAYER BRICK [illegible] 486,-000 brick to be delivered on the [illegible] Lebanon road, at $14.45 a thousand; and 562,000 brick blocks, to be delivered on [illegible] Brownsville road, at $14.45 a thousand.

YORK, PA.—Bids will be received by S. W. Bahn, Chn. Highway Com. until 7 p. m., April 6, for repairing [illegible] asphalt pavements, according to plans on [illegible] at the office of the city engineer.

BALTIMORE, MD.—Preliminary measures have been taken to issue bonds for [illegible] to pay for contemplated paving and other street improvements. J. Barry Mahool is Mayor, and Benjamin T. Fendall, City Engr.

*WASHINGTON, D. C.—Bids will be received by the Commissioners of the District of Columbia until 2 p. m., April 22, for making repairs to asphalt pavements for the period ending June 30, 1913. Forms of proposal, specifications and necessary information may be obtained from the Chief Clerk, Engineer Department, Room 427, District Bldg., Washington, D. C. Cuno H. Rudolph, John A. oJhnston, Edward M. Markham, acting, Comrs, D. C.

WASHINGTON, D. C.—Bids will be received by Capt. A. L. Pettus, Q. M., U. S. A., until April 7, for constructing macadam roads, concrete walks and curbs at the Walter Reed General Hospital.

ANDREWS, N. C.—See item under Water Supply-Irrigation.

✚*WILMINGTON, N. C.—We are officially advised that the contract for constructing approximately 2,740 sq. yds. of brick pavement on a 5-in. concrete basis, 1-in. sand cushion filler grout, and 1,160 lin. ft. of 5-in. × 13-in. granite curb has been awarded to the BOWE-PAGE DRAY CONSTRUCTION CO., Charleston, S. C., at $2.45 per sq. yd.

COLUMBIA, S. C.—Bids will be received by R. C. Keenan, Council Supt. of Sts., until noon, April 11, for paving from 6 to 25 blocks, each block averaging 3,150 sq. yds. of paving, and 884 lin. ft. of steel-bound concrete curbing. Bids will be received for paving with creosoted wood paving block, bitulithic pavement, bituminous concrete pavement and vitrified paving block on a 5-in. concrete foundation. John McNeal is City Engr.

*JACKSONVILLE, FLA.—Bids will be received by the Board of Commissioners of Duval County, at their office in the Court House, until 10 a. m., April 28, for resurfacing St. Johns Ave. from the city limits to McGirts Creek bridge, with asphalt macadam, approximately 27,000 sq. yds. Specifications and other data can be had upon application to Gail L. Barnard, County Engr., Court House, Jacksonville.

WINNFIELD, LA.—The Road Commission of Winn Parish has planned road improvements to cost $50,000. About 635 miles of road will be improved, the work to start as soon as plans have been prepared.

✚MEMPHIS, TENN.—Contracts for paving have been awarded as follows: McNeil St., Jefferson to Union Ave., tar macadam, R. C. HOUSTON, $6,690; Walker Ave., College St. to Mississippi Boulevard, tar macadam, R. C. HOUSTON, $13,780; Dunlap St., Poplar to Jackson Ave., tar macadam, H. P. STREICHER & CO., $22,148; Oliver Ave., Rembert to Cooper St., tar macadam, S. W. JOHNSON, $6,812; Barksdale St., Union Ave. to Nashville, Chattanooga & St. Louis R. R., bituminous macadam, F. D. HARVEY & CO., $18,622; Bellevue Boulevard, Autumn to Jackson Ave., tar macadam, F. D. HARVEY $ CO., $10,887; Cox St., Central to Madison Ave., tar macadam, F. D. HARVEM & CO., $18,222; South Cooper St., Central Ave. to Parkway, tar macadam, S. W. JOHNSON, $30,477; Jefferson Ave., Main to Lauderdale St., creosoted wood blocks, E. J. WETTERSTROM, $20,227; Mississippi Boulevard, Trigg to Kerr Ave., brick, ROACH & MANNIGAN, $1,537; Florida St., Trigg Ave. to Parkway, brick, ROACH & MANNIGAN, $8,873.

MOUNT STERLING, KY.—Ordinances have been passed providing for the construction of 11,250 sq. yds. of brick streets in the business section of the city, estimated at $1.75 per sq. yd.

AKRON, OHIO.—Bids will be received by the Department of Public Service until April 12, for constructing cement sidewalks. John Cauthier is Supt. Paving.

ASHLAND, OHIO.—Bids will be received by the City Council, Edgar Koehl, Clk., until noon, April 24, for grading and paving Diamond Alley.

✚ASHTABULA, OHIO.—The contract for paving Prospect St. has been awarded to THOMAS FITZGERALD, Ashtabula, at $32,-320. The other bidders were: Walter F. Clifford, Ashtabula, $33,647; W. J. Kunkle Co., Ashtabula, $35,084; Downs & Campbell, Canton, $36,362; R. P. Burnett, Cleveland,

$36,534; Geo. M. Harris, Meadville, Pa., $37,-636; Harvey & Hukari, Ashtabula, $37,167; Gould & Maybaugh, Cleveland, $39,335.

BEACH CITY, OHIO.—Bids will be received by H. B. Ward, Clk. of City Council, until April 17, for paving Main and West Sts. with vitrified block on gravel foundation.

BOWLING GREEN, OHIO.—Bids will be received by Fred W. Toan, Audr. Wood County, until 1 p. m., April 21, for constructing a road between Henry and Wood Counties, a distance of two miles.

BUCYRUS, OHIO.—Bids for paving South Walnut St. have been received as follows: H. N. Ostrander, Bucyrus, $6,266; A. P. Caldwell, Galion, Ohio, $6,652; P. Drake & Sons, Marion, Ohio, $6,467; J. W. Scott, Marion, Ohio, $6,654; George J. Bock, Coshocton, Ohio, $6,490; Hoffstetter & Dawson, Marion, Ohio, $6,053; J. W. Paule, Mansfield, Ohio, $[illegible]; L. R. McMichael, Bucyrus, Ohio, ...$[illegible]71.

CINCINNATI, OHIO.—Bids will be received by the Board of Commissioners of Hamilton County until noon, April 28, for improving Eight Mile Road in Anderson Township. Stanley Struble is Pres. Bd. and Fred Dreihs, Clk.

CLEVELAND, OHIO.—The lowest bids received for paving on March 29 were as follows: C. F. Reiley, Lakeside Ave., East Ninth to East 14th Sts., $22,100; R. P. Burnett, Lakeside Ave., East 26th to East 40th Sts., $[illegible]933; Baldwin Bros., West 117th St., $3[illegible]192; Cleveland Trinidad Paving Co., Overlook Road, $9,258.

COLUMBUS, OHIO.—Bids will be received by the Director of Public Service until April 14 for paving portions of Beech, Columbus, Summit and other streets. Thomas Brannan is Supt. Paving and John T. Barr, City Clk.

DELAWARE, OHIO.—Bids will be received by the Board of Public Service, S. Potter, Clk., until April 11, for paving five blocks of streets.

ELYRIA, OHIO.—Bids will be received by Martin Mueller, Dir. Pub. Ser., until April 10, for constructing brick pavements on West River St. C. S. Butts is City Engr.

IRONTON, OHIO.—Bids will be received by the Director of Public Service until noon, April 6, for paving with vitrified brick, on a macadam foundation, Third St., from Pine to Pleasant St. F. A. Ross, is Clk.

MARION, OHIO.—Bids will be received by the Board of Commissioners of Marion County about April 24 for constructing approximately seven miles of macadam road. C. L. Allen is County Audr.

MARYSVILLE, OHIO.—Bids will be received by the Board of Commissioners of Union County until April 15 for the improvement of Meddles and the Stamtes Roads in York Township; and until April 29 for the improvement of Boerger Road to Harris and Union Townships. Bert J. Shelton is Audr. of Union County.

MONTPELIER, OHIO.—We are officially advised that bids for laying 25,500 sq. yds. of paving were received on March 29, as follows: Hennessey Bros., Piqua, Ohio, brick, $1.87 to $1.91 per sq. yd.; H. S. Enck, Lima, Ohio, brick, $1.88 to $1.94 per sq. yd.; Carpenter & Anderson, Grand Rapids, Mich., asphalt, $1.89 per sq. yd.; Cleveland Trinidad Paving Co., Cleveland, Ohio, asphalt, $2.06 per sq. yd.; S. S. Saxton, Richmond, Ind., asphalt, $1.84 per sq. yd.; Andrews Asphalt Paving Co., asphalt, $1.99 per sq. yd.; Kneal & Ryan, Lansing, Mich., brick, $1.88 to $1.94 per sq. yd.; Moelering Construction Co., Fort Wayne, Ind., brick, $1.96 to $2.02 per sq. yd.; Fishbaugh & Karsch, brick, $1.94 to $2.09 per sq. yd.; G. A. Heffner & Sons, Celina, Ohio, brick, $1.64 to $1.71 per sq. yd. (Bid based on using local gravel; add 20 cts. per sq. yd. if commercial gravel is used): Lynn & Burke, Paulding, Ohio, brick, $1.79 to $1.83 per sq. yd.; Asphalt Block Co., Toledo, Ohio, 2-in. asphalt, $2.10; 2½-in. asphalt block, $2.20 per sq. yd.; Freshwater & Sons, Celina, Ohio, brick pavement, $1.84 to $1.91 per sq. yd.; asphalt pavement, $1.89 per sq. yd. The Riggs & Sherman Co., Nasby Bldg., Toledo, Ohio, are Consult. Engrs.

✚RAVENNA, OHIO.—Bids were received on March 29 by the Board of Commissioners of Portage County for the improvement of the Kent-Ravenna Road, and the contract awarded to E. E. MORGAN & H. B. GREEN, Ravenna, Ohio, at $74,981.

STEUBENVILLE, OHIO.—Bids will be received by the Director of Public Service, R. L. Freudenberger, Clk., until noon, April 10, for paving, grading and curbing portions of Wilson Ave., Wells and Slack Sts.

✚TOLEDO, OHIO.—Contracts for paving have been awarded as follows: Tecumseh St., vitrified brick, McKINNEY BROTHERS, $8,248; Albion St., brick, WATTERS & TANSEY, $8,950; Forest Ave., asphalt block, ASPHALT BLOCK PAVING CO., $20,568; Islington St., sheet asphalt, ANDREWS ASPHALT CO., $6,797; Bancroft St., TOLEDO CONTRACTING CO., $7,208; Erie St., sheet asphalt, ANDREWS ASPHALT CO., $8,836; Wheeling St., macadam, Carbo-Via, GARRIGAN BROTHERS, $7,224; Clark St., macadam, Carbo-Via, GARRIGAN BROTHERS, $11,925; Peck St., Harris paving brick, RUSSELL & JENNISON CO., $11,365; Mott Ave., Trimble block, M. F. O'SULLIVAN, $11,479; Woodruff Ave., brick, McKINNEY BROTHERS, $10,200; Superior St., sheet asphalt, ANDREWS ASPHALT CO., $6,955; St. Clair St., creosoted wood block, RUSSELL & JENNISON CO., $27,162.

YOUNGSTOWN, OHIO.—Bids will be received by the Commissioners of Road District No. 1, Mahoning County, until 1.30 p. m., April 10, for improving with slag and limestone macadam the Furnace Road in Youngstown Township, a distance of 6,814 ft., and the Hopkins Road, Section No. 2, a distance of 5,133 ft.

YOUNGSTOWN, OHIO.—Bids for paving have been received as follows: Superior St., S. H. DeGrod, $12,574; J. Collucci, $12,-658; James McCarron, $13,037. Oak St., A. O'Hara, $27,441; M. P. Connelly, $28,260; Turner & Olson, $28,439. Logan Ave., S. H. DeGrod, $35,776; M. P. Connelly, $35,901; W. E. Gartland, $35,995. Breaden St., Miller Bros., $10,494; Mullin & Quinn, $10,522; S. H. DeGrod, $10,881. Duquesne St., Youngstown Construction Co., $6,620; Turner & Olson, $6,752; Kennedy Bros., $6,783.

CROWN POINT, IND.—A petition has been granted for the construction of eleven miles of gravel road in Eagle Creek Township. The Commissioners will ask for bids as soon as the plans and specifications can be prepared. It is estimated that this work will cost about $30,000.

INDIANAPOLIS, IND.—Bids will be received by the Board of Public Works until April 12 for the improvement of Tremont Ave., Raymond St. and Washington Boulevard by grading and paving the roadway, curbing and constructing sidewalks.

INDIANAPOLIS, IND.—Resolutions have been passed providing for street improvement to cost $146,540. The largest portions were: Jefferson Ave., estimated cost $21,-147; Alabama St., from Ohio to Massachusetts Ave., estimated cost $15,570; the alley east of College Ave., from 22d to 25th St., $12,412, and South Belmont Ave., at $10,355. Henry W. Klausman is City Engr.

MICHIGAN CITY, IND.—Plans and specifications are being prepared for paving Baltimore St., Wabash St., and Willard Ave. Bids will be received for several kinds of pavement. M. R. Miles is City Engr.

RICHMOND, IND.—The Commissioners of Wayne County will soon ask for bids for the improvement of the National Road west of the city to the Center Township line. The new road will be the most costly ever built in Indiana outside a city.

WABASH, IND.—Bids will be received by the Board of Public Works until April 10 for the improvement of Manchester Ave. by grading, paving and curbing.

DETROIT, MICH.—Estimates for street work have been prepared by the Board of Public Works, J. J. Haarer, Comr., as follows: For repairing, patching and resurfacing with asphalt, $457,558; resurfacing with brick, $205,704; repaving with sheet asphalt, $175,610; repaving with brick, $316,391; repaving with creosoted block, $22,984.

CHICAGO, ILL.—Bids will be received by the Board of Local Improvements, until 11 a. m., April 6, for improving various alleys. Albert F. Keeney is Pres. of Bd., and Chas. A. V. Standish is Secy.

CICERO, ILL.—Bids will be received by John Forest, Secy. Board of Local Improvements, until 8 p. m., April 11, for laying vitrified brick pavement in Morton Park St. George Comerford is Pres. Bd.

EAST ST. LOUIS, ILL.—Bids will be received by the Board of Local Improvements, Frank B. Hanna, Clk., until noon, April 14, for improving the alley south of Missouri Ave., and between Collinsville Ave. and Main St., by grading, paving, curbing and sewering. The work includes: 510 sq. yds. vitrified brick paving on 6-in. concrete base, 2-in. sand cushion and cement grouted on top; 150 cu. yds. excavation placed in fill; 205 lin. ft. oak headers, 2 in. by 12 in.; 200 lin. ft. 15-in. vitrified clay sewer pipe; 20 lin. ft. 10-in. vitrified clay sewer pipe; 170 lin. ft. 6-in. vitrified sewer pipe; 12 cu. yds. brick masonry in manholes; 3 cast-iron manhole caps set.

OAK PARK, ILL.—Bids will be received by the Board of Local Improvements until 4 p. m., April 11, for the construction of 7,480 sq. yds. of asphaltic concrete pavement and 3,990 lin. ft. granite concrete combined curb and gutter on Lincoln Ave., between Chicago Ave., and Augusta St., and on Iowa St., between Oak Park and East Aves. B. C. Brandstadt is Secy Bd.

✚PARIS, ILL.—The contract for paving East Crawford St. has been awarded to ALLAN J. PARRISH, at $8,574. The Baum Construction Co. bid $8,743 on this work.

✚PEORIA, ILL.—Contracts for paving have been awarded as follows: South St., from South Washington to South Water St., to A. D. THOMPSON, at $4,373.80; Sixth st., from Spencer to Elliott St., to JOHN McALLISTER, at $5,725.

BELOIT, Wis.—Bids will be received by the Board of Public Works, until 10 a. m., April 17, for the improvement of various streets. J. L. Hendley is Chn.

FOND DU LAC, WIS.—Bids for paving Sixth St., from Main St. to Fond du Lac Ave., with reinforced cement, have been received as follows: John Rasmusson & Co., $17,792.50; G. H. Stanchfield, $17,884; John Brogan, Green Bay, Wis., $18,167; McCugo-Bullock Co., $18,272; and Christopher Johnson, Oshkosh, Wis., $20,042.

OSHKOSH, WIS.—Bids will be received by the Board of Public Works, J. E. Mallery, Chn., until 2 p. m., April 8, for grading, curbing, paving and otherwise improving portions of various streets.

PLATTEVILLE, WIS.—Bids will be received by J. E. Kennedy, City Clk., until 8 p. m., April 13, for constructing 8,880 sq. yds. of paving, according to plans and specifications on file with the City Clerk and with W. G. Kirchoffer, Vroman Bldg., Madison, Wis., Design. Engr. Bids will be received on brick, reinforced concrete, tar or asphalt macadam and sarcolithic paving.

✚DES MOINES, IOWA.—Press reports are to the effect that a contract for paving at Des Moines has been awarded to MAIER BROS., Erie, Pa., at $50,000.

✚SIOUX CITY, IOWA.—We are officially advised that the contract for paving First St. with brick block was awarded on March 25 to FLINN & HANLON, at $1.33.

KATHIO, MINN.—Bids will be received by E. Dinwiddie, Town Clk., until April 14, for grading, ditching and placing culverts.

FORT SCOTT, KAN.—Bids will be received by the Board of Commissioners of Bourbon County until April 10 for constructing 2½ miles of rock road in Scott Township. F. G. Schwartz is County Clk.

KANSAS CITY, KAN.—Bids will be received by J. E. Smyth, City Clk. until 3 p. m., April 10, for grading Heathwood Park in accordance with plans and specifications on file with the City Clk.

GRAND FORKS, N. DAK.—Bids will be received by Charles J. Evanson, City Audr., until April 11, for repaving about 45,000 sq. yds. with bitulithic, Donnelite, creosoted block, vitrified brick, cement concrete, asphaltic concrete, concrete and asphalt macadam.

LITTLE ROCK, ARK.—We are officially advised that bids will soon be asked for twelve blocks of wood block paving, at an approximate cost of $45,000, in the West 23d St. Improvement District. W. F. Reichard, 204 Riegler Bldg., Little Rock, Ark., is Engr.

FORT CROCKETT (Galveston post-office), TEX.—Bids will be received by Capt. P. Whitworth, Q. M., U. S. A., at Fort Crockett, Galveston, until 2 p. m., April 18, for the construction of mudshell roads and walks.

GROESBECK TEX.—A bond issue for $12,-000 has been voted for the construction of concrete sidewalks.

HOUSTON, TEX.—Bids will be received by John B. Ashe, Audr. Harris County, until noon, April 11, for paving, as follows: With brick, Washington St., from the old city limits to Houston Heights Boulevard; with gravel and shell, Battle Ground Road, from Deer Park to Lynchburg Ferry; with shell, 4½ miles on the Crosby and Houston Road, Cedar Bayou. Plans and specifications are on file with Howe & Wise, County Engrs.

SWEETWATER, TEX.—The Board of County Commissioners will soon begin the work of macadamizing the roads of the Sweetwater precinct. At a recent election $100,000 of bonds were voted for this purpose.

OKLAHOMA CITY, OKLA.—Bids will be received by Bob Parman, City Engr., until 5 p. m., April 10, for constructing sidewalks, excavating, and moving retaining wall back to property line, in front of lots 21 and 22, Block 19.

ABERDEEN, WASH.—The County Commissioners are considering road improvements to include the construction of a draw-bridge. Estimated cost, $50,000.

✚MONTASANO, WASH.—The City Council has awarded the contract for paving Spruce St., from the court house to the bridge to the ANDERSON CONSTRUCTION CO., Tacoma, Wash., at $16,266.

MOUNT VERNON, WASH.—Bids will be received by J. S. Bowen, City Clk., until 5 p. m., April 12, for constructing various streets in the city.

VANCOUVER, WASH.—Plans and specifications for improving East, Eighth, Jackson and East 15th Sts. have been approved. The cost is estimated at $33,953.

VANCOUVER, WASH.—The City Council has adopted resolutions providing for the improvement of a portion of East South St. by paving, at an estimated cost of $11,089.

COQUILLE, ORE.—Bids will be received by A. Rodine, Road Superv. of Road District No. 6, Coos County, until 10 a. m., April 14, for building a road according to specifications on file with the County Clk.

✚COVINA, CAL.—The Board of Trustees have awarded a contract to L. H. McGOWAN, Higgins Boulevard, Los Angeles, Cal., for improving one mile of Citrus Ave., at $37,693. The work includes asphalt paving, macadamizing and constructing cement curbs and gutters. The other bids received were: B. T. Ford, Los Angeles, $41,846; Johnson-Shea Co., Los Angeles, $42,918. Dessery & West, Union Trust Building, Los Angeles, are Engrs.

EUREKA, CAL.—Bids will be received by George Cousins, Clk. Bd. of Supvrs., until 2 p. m., April 11, for the construction of a new road, 8,240 ft. in length, from the Eel River bridge site to the county road at Clausen's Corner in road District No. 1.

✚LOS ANGELES, CAL.—A contract for improving Washington St., from Normandie Ave. to Western Ave., has been awarded to the BARBER ASPHALT PAVING CO., Central Bldg., Los Angeles, at $133,479.

SAN LUIS OBISPO, CAL.—Bids will be received by W. J. Miles, Clk. Bd. Trustees, until 7.30 p. m., April 10, for paving Osos St.

HULL, QUE.—Bids will be received by John F. Boult, City Clk., until April 10, for constructing artificial stone sidewalks.

NEW WESTMINSTER, B. C.—The sum of $30,000 will be expended this season on the British Columbia section of the Pacific Highway, extending from New Westminster to the United States boundary.

SASKATOON, SASK.—Bids will be received until April 7 for constructing cement sidewalks, according to plans and specifications on file with the City Engineer. James Clinkskill and W. B. Neil are City Comrs.

MANUFACTURING PLANTS.

(✚ *Denotes a contract awarded.*)

LISBON FALLS, ME.—It is reported that the Worumbo Mfg. Co. is preparing to build an addition to the present mill, that will employ 150 persons. The water power developed by the present plant is 3,500 HP. and only 700 HP. is used.

✚BRATTLEBORO, VT.—Announcement is made that the directors of the Fort Drummer Mills recently let the contract for the construction of the new textile mill on Fort Dumer Heights to J. W. BISHOP & CO., of Worcester, Mass., at about $90,000.

LUDLOW, VT.—The Vermont Wood Reduction Co., recently organized at Ludlow, purposes to erect a plant in the near future.

LEOMINSTER, MASS.—The toy manufacturing plant owned and operated by H. E. Bartlett and burned last winter will be rebuilt. The main building, which was two stories high and 100 × 60 ft., will be replaced by a building of the same size. Another building of the same dimensions used largely as a storehouse, was gutted, and work of repairing it will be carried on in connection with the building of the construction plant.

NEEDHAM, MASS.—The Bourne Piano Co., recently of Roxbury, is to build a factory in Needham, the home of Charles E. Bourne, Pres. of the company. It will be built on Highland Ave. The plans call for a structure 50 × 80 ft., three stories high, with a cement basement. Construction will begin soon. About 35 persons will be employed at the start.

NORTH ADAMS, MASS.—It is reported that plans have been drawn for a 14,000-spindle mill, to be built for the Berkshire Cotton Mfg. Co.

WORCESTER, MASS.—The Spencer Wire Co. plans to erect a mill on Webster St. to cost about $75,000. The new building will be of mill construction, 400 ft. long and 80 ft. wide, three stories in height. The walls will be of brick, with wood used in construction work. The foundation and floors will be of concrete. The building will be heated by steam, lighted by electricity, have two freight elevators and probably the sprinkler system. It will be used for the general manufacture of wire.

The Standard Woven Fabric Co. has been incorporated at Worcester, and plans to establish a plant to manufacture and deal in all kinds of belting, hose and woven fabrics. The capital of the firm is $400,000 and the officers are: Herbert F. Barrup, Pres. and Treas.; John E. Clarke and William K. Wheeler, all of Athol, Mass.

✚We are officially advised that the contract to erect an addition to the manufacturing plant of the Royal Worcester Corset Co. has been awarded to JAMES MILES & SON, of Worcester. It will be of mill construction, five stories high, 165 × 63 ft., of brick and stone. Arthur F. Gray, Exchange Bldg., Boston, is Engr. The estimated cost of the building is $75,000 and equipment, $35,000. Noted last week.

✚NEW BRITAIN, CONN.—Landers, Frary & Clark, Inc., on April 1, awarded the contract for their proposed factory building on East Main St. to B. H. HIBBARD CO., of New Britain. This building will be 350 × 50 ft. and seven stories high. Noted on March 9.

WESTERLY, R. I.—The Bradford Dyers' Association, Ltd., of Bradford, England, which is to establish a dyeing and finishing plant in Westerly, has been granted a charter under the laws of Rhode Island. The incorporators are: David H. Thornton, of Bradford; Rufus W. Sprague, Jr., of New York; and James H. Hurley, of Providence. The Bradford Association for some time has been purchasing large areas of land in and around Westerly, extending for a mile and a half along both sides of the Pawtucket River, and it is expected that the culmination of the project will mean the establishment of one of the largest commercial dyeing plants in the world, according to press reports.

✚NORTH TONAWANDA, N. Y.—MORRIS & ALLEN have been awarded the contract to erect a 1-story brick addition, 50 × 250 ft., to the factory of the Buffalo Belt Co. here, and also for other minor structures at the plant. The total cost amounts to about $50,000.

NEW YORK, N. Y.—We are officially advised that plans have been completed by Maynicke & Franke, Archs., 25 East 26th St., for the construction of a 10 story fireproof candy factory on the northwest corner of Spring and Hudson Sts., for Henry Heide, 84 Vandam St., and estimates are now being received. The contract will be awarded in about two weeks. Estimated cost, $350,-000. Noted on Jan. 19.

✚SYRACUSE, N. Y.—L. C. Smith & Bros.' Typewriter Co. has let the contracts to DAWSON BROS. and C. J. SMITH for the erection of an 8-story addition to its plant at East Washington and Almond Sts. Work will begin soon, and the addition is to be ready for use in the early fall. It will be of brick construction.

SYRACUSE, N. Y.—The Universal Paint Co. has announced its intention of building a $100,000 factory here. Three sites are under consideration. D. W. Rothensies, of Reading, Pa., is Pres.

WHITINSVILLE, MASS.—The Whitin Machine Co., of this place is planning to build an addition to its factory. The building will be of brick and steel, 100 × 500 ft. Charles S. Snow, has charge of the work.

FULLERTON, PA.—A silk mill is contemplated here by John McBride, at an approximate cost of $30,000.

✚PHILADELPHIA, PA.—WELLS BROS. & CO. have been granted a permit to erect a warehouse and coal storage plant, to cost $550,000, for the Curtis Publishing Co. at the northwest corner of Eleventh St. and Washington Ave. The plans, by F. C. Roberts & Co., provide for a 4-story brick, steel and concrete structure, 173 × 114 ft., with a wing 22 × 40 ft.

✚CHARLES W. DENNY, 1330 Arch St., has been awarded the contract to erect a 3-story addition, 52 × 100 ft., to the plant of the Harvey Fiber Carpet Co. on Janney St. near Clearfield.

PITTSBURG, PA.—A 7-story factory is contemplated by J. W. Craig at Pike and Thirteenth Sts. on a plot 100 × 100 ft. It will be of fireproof construction and it is stated that the Pittsburg Hardwood Door Co. will occupy the building when completed. Construction will soon start.

READING, PA.—William H. Luden will erect an addition to his confectionery establishment on North Eighth St., it is stated. He purchased the Goodrich & Keefer property, located north of his factory, which is 60 × 100 ft. George L. Gerhard, Arch., has been engaged to prepare plans. The addition is to be especially devoted to the manufacture of Menthol cough drops. A railroad siding will be run into the factory. Opposite the factory, at 225 North Eighth St., Mr. Luden has acquired another property where he pro-

poses to erect a building for a restaurant. Its dimensions are 20 × 110 ft. The present structure will be removed.

WILLIAMSPORT, PA. — W. D. Crooks & Sons are planning to build an addition to their woodworking plant at the foot of Rose St.

BALTIMORE, MD.—The Baltimore Overall Mfg. Co., 40 South Howard St., has been incorporated with $25,000 capital stock. D. Pelzerman is Pres. and M. Wilenzig, Treas. It is the intention of the company to establish a plant with a daily capacity of 200 dozen.

✚A cold storage plant will be built on Sharp St. between Lee and Hill Sts. by the Baltimore & Ohio R. R. Co. The contract has been awarded to EDWARD BRADY & SON, 1109 Cathedral St. The plant will be of brick and concrete construction and 54 × 350 ft. and will have a slag roof.

✚The contract for the erection of a cold storage plant and warehouse for Swift & Co., meat packers, at the northwest corner of Pratt and Howard Sts., has been awarded to the B. F. BENNETT BUILDING CO. The building is to be two stories high and 67 × 74 ft. It will be of brick and stone, with slag roof and concrete foundation, entirely fireproof. The building will be equipped with sheet metal shutters. For construction the cost will be $22,000.

MONEY, VA.—The Marvel Mfg. Co., of Laurel, Del., will establish a branch fruit and vegetable package factory at Money, under the name of the Virginia Package Co. W. W. Robertson, of Norfolk, will be Res. Dir.

BERKELEY SPRINGS, W. VA.—F. E. Bartlett, of Mannington, W. Va., has bought from Fouse & Bechtel part of the old tannery property at Mercer and Independence Sts., Berkeley Springs. A cold storage plant will be erected on the site, and plans are now being prepared for the building, which is to be a 2-story brick structure, about 100 ft. square.

KINGWOOD, W. VA.—Structures to include machine shops, car shops, round-house and engine-house are to be erected here, according to reports, by the Morgantown & Kingwood R. R. Co., of which J. K. Monroe, of Kingwood, is Ch. Engr.

PARKERSBURG, W. VA.—The Virginia Paper Products Co. plans to establish a plant here which will have a daily output of 5,000 paper boxes.

✚GLADSTONE, N. C.—The Flint Mfg. Co., of Gastonia, will invest about $50,000 for new additional machinery that will add largely to its present capacity. It has awarded all the contracts, including the principal orders for the textile equipment which were given to the WHITIN MACHINE WORKS, of Whitinsville, Mass., and the WOONSOCKET MACHINE & PRESS CO., of Woonsocket, R. I. The new machinery will include 2,500 spindles, with the accompanying carding and combing equipment for manufacturing 50s to 80s cotton yarns. These spindles, etc., are expected to be in position by June. An improvement accompanying this installation will be the erection of twelve cottages for the families of the operatives who will be needed. At present the company is operating 7,500 ring spindles, etc., by electricity, on the production of combed, peeler, weaving and knitting yarns, with 300 persons employed.

GREENVILLE, S. C.—The Crown Cotton Co., recently incorporated with a capital stock of $35,000, is planning to construct a manufacturing plant. Its incorporators are: Lewis W. Parker, R. F. Bowe, W. E. Beattie and Ellison A. Smyth.

ARAGON, GA.—Articles of incorporation have been filed by the Bald Mountain Portland Cement Co. with a capital stock of $1,000,000, by J. L. Bass, J. N. King, B. T. Haynes and others, of Rome, Ga.; E. C. Lester, of Atlanta; S. W. Palmer, of Millen, Ga., and M. M. Jack, of Dalton, Ga. A plant will be erected which will utilize the Bald Mountain shale and limestone property of 300 acres, 1½ miles north of Aragon. The main offices of the company will be located in Rome, it is announced.

ANNISTON, ALA.—A hosiery mill is to be established here by S. C. Meade, of Philadelphia, Pa., it is reported. About 25 operatives will be given employment at the start. Mr. Meade can be addressed care of Newton Wilson at Anniston.

BESSEMER, ALA.—The International Harvester Co. has purchased a site of ten acres at Gordon Heights for the purpose of erecting a branch factory.

COLUMBIANA, ALA.—The Columbiana Concrete Pipe Co. has been organized to manufacture concrete pipe and brick with J. B. Pitts as Mgr. A plant will be erected.

✚ANGOLA, LA.—The Board of Control of the State Penitentiary, W. W. Beard, Pres., Baton Rouge, has awarded the contract to PAYNE & JOUBERT, of New Orleans, La., for erecting the State Farm sugar mill building, including machinery, etc., with the exception of a 9-roller mill and crusher, this contract having been let to BANCROFT, ROSS & SINCLAIR, of New Orleans, at $66,900. The building will be of structural steel and will be equipped to produce 1,500 tons of granulated sugar daily. An electric-light plant, oil tank, etc., are also included in machinery. Total cost, $345,257.

NEW ORLEANS, LA.—The National Brewing Co., capitalized at $250,000 is being organized in New Orleans. The Board of Directors of the new corporation has already been selected, and Charles Wagner has been elected to the Presidency of the concern. A site is being considered, upon which the company will erect a modern brewing plant.

MEMPHIS, TENN.—According to reports, a plant for the manufacture of proprietary medicines, extracts and spices, soaps and perfume articles, is to be among the next acquisitions that the city of Memphis is to have. The plant will be the new Southern branch of the W. T. Raleigh Medical Co., of Freeport, Ill.

LOUISVILLE, KY.—The C. E. Ziegler Tobacco Co., located on Eddy St., between 16th and 17th Sts., filed articles of incorporation in the County Clerk's office recently with a capital stock of $150,000. Plans for a new plant, to cost about $35,000, are now under consideration. Address W. D. Collins.

✚CLEVELAND, OHIO.—The Lake Erie Provision Co. will erect a packing house on Clark Ave. C. W. Courtney, Reinforced Concrete Engr., has designed the plans for this building which will be three stories high and about 60 ft. wide and 100 ft. in depth. The general contract for this building has been awarded to WALTER I. THOMPSON & SON, 6110 Euclid Ave.

✚TOLEDO, OHIO.—We are officially advised that the contract to erect a 1-story fireproof plant, 40 × 100 ft., for manufacturing stamping machinery, has been awarded to the RATH CONSTRUCTION CO., of Toledo. The Acklin Stamping Co. is the owner and the De Vore-McGormley Co., of Toledo, the Archs. The structure will be of steel, glass and brick and will cost $18,000, including machinery. Noted last week.

YOUNGSTOWN, OHIO.—Bids are being received by the Leavitt-Milroy Co. for the construction of a warehouse on Watt St. L. Boucherle & Son are the Archs. Estimated cost, $50,000.

INDIANAPOLIS, IND.—The Smith Agricultural Chemical Co., of Columbus, Ohio, is preparing to build a plant at Reisner St. and Kentucky Ave. Plans are being made for seven acres of buildings, estimated cost, $1,000,000. The construction will be steel and concrete. Nearly one mile of private switch track will be put in. Bids will be received in a few weeks.

LAFAYETTE, IND.—The Wabash Pearl Button Co., has ordered plans for remodeling its old buildings and for the construction of new buildings for the button factory on Union St. L. A. Hall is Pres.

MUNCIE, IND.—The Bell Bros. Piano Co. is receiving bids for the erection of two factory buildings in the southwestern part of this city.

✚DETROIT, MICH.—Albert Kahn and E. Wilby, Trussed Concrete Bldg., have awarded the contract for the 2-story factory, 120 × 136 ft., for the American Electric Heater Co., Woodward and Burroughs Aves., B. H. Scranton, Mgr., to the HEITSCH CONSTRUCTION CO., Penobscot Bldg., Detroit. Cost, $40,000.

✚DETROIT, MICH.—Varney & Winter, Equity Bldg., have awarded the following contracts for the 1-story factory, 36 × 100 ft., for George L. Sampson, 79 Palmer Ave. East, Bosch Magneto Co., Lessee, 878 Woodward Ave.: Structural iron work, to WHITEHEAD & KALES, Bucher Ave. and Michigan Central R. R.; masonry, to PUTNAM & MOORE, 733 Wabash Ave. Cost, $25,000.

The planing mill, sash and door factory of the Schmied-Sisman Co., 391 Beaufait Ave., which was totally destroyed by fire on March 28, with a loss of $75,000, will be rebuilt at once.

The Reynolds Motor Co., of Detroit, has increased its capital from $40,000 to $100,000 and contemplates improvements to its plant, it is reported. George H. Cheney, 428 Pennsylvania Ave., is one of the stockholders.

DETROIT, MICH.—The sash and door factory of the Ostrander Lumber Co., 204 Buena Vista Ave., which was completely destroyed by fire on March 25, with damage amounting to about $20,000, will be rebuilt.

GRAND RAPIDS, MICH.—The Elliott Machine Co., Wm. E. Elliott, Mgr., 5 Erie St., Grand Rapids, is having plans prepared for a factory building on which construction will be started as soon as possible.

✚NILES, MICH.—John D. Chubb, 112 Clark St., Chicago, Ill., has awarded the following contracts for the proposed boiler-house for the city of Niles: General contract to A. W. RICKMAN, of Kalamazoo; plumbing and heating to C. E. EVANS, of Freeport, Ill.

ELGIN, ILL.—An addition is planned to the plant of the Western Casket Hardware Co., at 66-68 River St., to run back 50 ft. to the river. C. W. Glover is Pres.

✚CLINTONVILLE, WIS.—The Four Wheel Drive Auto Co. has awarded the contract for erecting the first unit of its plant here to B. HERMAN & SON, of Antigo, Wis., at $10,000. W. W. DeLong, of Appleton, Wis., is Arch. The company is now purchasing equipment for the power plant and requires a 100-HP. engine and two boilers, about 5 × 16 ft. William Besserdich is Gen. Mgr. Noted on March 2.

JEFFERSON, WIS.—Directors of the Vaughn Mfg. Co. voted to build a new agricultural implement plant here, at once, to replace the plant destroyed by fire recently. Julius Heimerl, Arch, 220 34th St., Milwaukee, has been commissioned to prepare plans and specifications. Approximately $35,000 will be invested. John W. Held is Pres. and Paul W. Hibbard, Secy.-Treas.

✚MENASHA, WIS.—The Lakeside Paper Co., which is building a $500,000 plant here, has awarded equipment contracts as follows: Boilers, the LYONS BOILER WORKS, of Depere, Wis.; heaters and washers, the VALLEY IRON WORKS, of Appleton; 114-in. machine, the SMITH & WINCHESTER CO., of South Windham, Conn.

MILWAUKEE, WIS.—A. V. Wiskocil, Arch., 411 Uihlein Bldg., is completing plans for a $20,000 dyehouse to be erected in the rear of the Novelty Dye Works, Michigan and Jefferson Sts. The building will be of reinforced concrete construction, four stories high, 30 × 68 ft.

✚WAUSAU, WIS.—The Badger Turpentine Co. has awarded the general contract for the construction of its plant here to the WAUSAU IRON WORKS. Three buildings will be erected, a main factory, 40 × 100 ft.; finishing works, 50 × 60 ft., and a power-house, 20 × 35 ft. They will be of brick and concrete construction.

MINNEAPOLIS, MINN.—The Domestic Bakery Co., of Cincinnati, Ohio, has taken out a permit to build a $60,000 bakery. It will be two stories high, of brick and concrete construction.

CUERO, TEX.—Newspaper advices are to the effect that the Cuero Cotton Factory, reorganized as the Cuero Cotton Mills, will award contracts in May to erect a main mill addition, 60 × 100 ft., and a 50 × 60-ft. ell for cloth room and office. The company will overhaul the old textile equipment and change to spin coarser yarns; will install 2,000 spindles, picking machinery, carding equipment, steam heating plant and humidifying system. The cost will be about $50,000.

GONZALES, TEX.—W. D. Faus will install a plant for the manufacture of concrete blocks and other building material.

SAN ANTONIO, TEX.—The Standard Oil Burner, of San Antonio, will install a plant in that city for the manufacture of crude oil burners.

BOISE, IDAHO.—Articles of incorporation have been filed by the Boise Canning Co. and the construction of a cannery is contemplated. The capital stock is $50,000 and the plant will cost $40,000, it is stated.

MIDDLETON, IDAHO.—A pickle factory and vinegar works is to be established here by C. J. Hann, of Medford, Ore. Work on the construction will soon start.

CLIFTON, ARIZ.—The bottling works of Stephens & Schade at Clifton that were recently destroyed by fire, entailing a loss of about $30,000, will be rebuilt.

PASCO, WASH.—A 500-bbl. flour mill is planned here by M. Moriarity, of Reardon. Plans are now being made.

PORTLAND, ORE.—Plans have been prepared for the reinforced-concrete building to be occupied by the chair department of the Doernbecher Mfg. Co. It will be built at the end of the present factory building, in Sullivan's Gulch, east of East 28th St. The main building will be 500 × 85 ft. One-half will be two stories high and the other half three stories. There will be dry-kilns, boiler-house and other smaller buildings in connection with this department. The 2-story part will be used for the manufacturing department and the 3-story section is for the finishing. Steam shovels are at work excavating along the north side of Sullivan's Gulch, moving the dirt to the northeast, where a fill is being made. F. S. Doernbecher, Gen. Mgr., estimates that 750,000 cu. yds. of earth will be moved before the site will be cleared ready for the site of the chair factory department. He estimates the cost of the excavation and the new building at about $75,000, but these figures may be exceeded, it is announced.

The Golden Rod Milling Co. has been formed in Portland for the purpose of succeeding the Acme Mills Co. in the operation of its Portland business, and for the rebuilding of the old plant and making extensive improvements, which will increase the capacity of the mill here to 250 bbls. a day. Walter A. Goss, who long has been identified with the Acme Mills as the Pres. and Mgr., will retire from the business and will be succeeded by his brother, Albert S. Goss, who has been associated with him for several years. The other principal owners of the new concern are R. S. Thomas and Andrew Johnson. The new company has been incorporated at $150,000.

ARLINGTON (Riverside post-office), CAL. —The Alfalfa Meal & Milling Co., of Los Angeles, has acquired a building site and will erect a 30-ton milling plant, to cost $25,000.

AUBURN, CAL.—The Placer County Mountain Fruit Co., a new corporation, will erect a $10,000 packing house here.

LODI, CAL.—Low T. Freitas, Attorney, of Stockton, has prepared papers of incorporation and same will be filed at San Francisco by the International Co., capitalized at $5,000,000. The company intends erecting a factory at Lodi, costing $60,000, for the manufacture of a gas for preserving meat and fruit.

LOS ANGELES, CAL.—A bottling plant will be erected by Anheuser Brewing Co. at North Main and Albion Sts., to cost $300,000. The structure will be three stories high. There is already a partially completed building on the site and two stories will be added to same.

OAKLAND, CAL.—The Golden West Brewing Co., Fifth and Kirkham Sts., has made arrangements for improvements to its plant in the nature of an addition to the buildings to cost in the neighborhood of $50,000.

RICHMOND, CAL.—The Crockett Feed Co. has purchased a string of lots near the intersection of 16th St. and will transfer its plant from Crockett, building here a warehouse and a 4-story mill, 50 × 80 ft. The permit to build has already been obtained. Nearby is to be established an artificial ice plant. A site has been secured for a third plant.

SACRAMENTO, CAL.—The erection of a planing mill, on lots 1 and 2 of the block bounded by X and Y, Third and Fourth Sts., is contemplated by Kunz & Van Hall.

SAN MATEO, CAL.—Andrew Smith, proprietor of an automobile and carriage works, contemplates the erection of a factory for the manufacture of well casings and drain tiles, out of perforated metal, an invention recently patented by him.

SELMA, CAL.—Libby, McNeil & Libby will erect a packing house, 104 × 180 ft., a warehouse, 100 × 104 ft., a steam power plant, a dining and kitchen building, and dwelling houses here. Estimated cost of buildings, $25,000. L. M. Brinker is local representative.

MAISONNEUVE, QUE.—The United Shoe Machinery Co. is about to erect a factory at the corner of Letourneau and Giroux Sts., to cost $195,000.

ST. CATHARINES, ONT.—Plans have been prepared for a factory, 120 × 240 ft., to cost about $125,000, for the Steel & Radiation Co., Ltd. R. J. Cluff is Gen. Mgr.

ST. BONIFACE, MAN.—The Manitoba Rolling Mills Co. is having plans prepared for extensive additions to its mills in St. Boniface.

ST. BONIFACE, MAN.—The Martin-Senour Paint Co., 2520 Quarry St., Chicago, Ill., has purchased a site at St. Boniface and will start work this month on a factory to cost $55,000.

EDMONTON, ALTA.—The Great West Saddlery Co. is about to erect a branch factory here, six stories high, costing $...,000. E. F. Hutchings, of Winnipeg, Man., is Pres.

VANCOUVER, B. C.—H. K. ..., Managing Director of the Associated Portland Cement Co., of London, Eng., and H. D. Anderson, his associate, are in Vancouver and Victoria in connection with the proposed establishment of a number of cement plants from the Atlantic to the Pacific. The plans of the company call for the expenditure of several million dollars.

MISCELLANEOUS CONTRACTS.

(*Denotes that this work is advertised in *Engineering News*.)

U. S. RECLAMATION SERVICE.—All news concerning canal and irrigation projects, etc., will be found under Water Supply—Irrigation.

TELEPHONE EXCHANGE.—Portland, Me. —A large telephone exchange building is to be erected by the New England Telephone & Telegraph Co. Densmore & Le Clear, 88 Broad St., Boston, Mass., are the Archs.

FERRYBOAT.—Boston, Mass.—Bids will be received until April 25 by Louis K. Rourke, Comr. Pub. Wks., for a double-screw ferryboat.

JETTY.—Boston, Mass.—Bids will be received until April 14 by the State Harbor and Land Commissioners for furnishing and depositing in place about 1,500 tons of granite quarry grout and chips at the inner end of the present stone jetty at Scorton Harbor. George E. Smith is Chn., Boston.

✚DREDGING.—Boston, Mass.—The following bids were received on March 31 by the State Harbor and Land Commissioners for the following work at Lake Anthony, town of Oak Bluffs, Martha's Vineyard: (a) dredging 15,000 cu. yds., (b) depositing 600 tons granite quarry grout, (c) depositing 800 tons granite quarry chips, (d) setting 200 cu. yds. concrete in place, and (e) setting in place eight iron clamps. The bids were: John Cashman, (a) 28 cts., (b) $2.50, (c) $8, (d) $25, (e) 5; JOHN H. GERRISH, (a) 29 cts., (b) $2.40, (c) $6.45, (d) $15, (e) $14.50 (awarded contract). Also at the same time and place bids were received for placing 1,500 tons of quarry chip at Bass River. One bid was submitted, that of SEARS & CONNOLY, at 12.60 (awarded contract); also bids for dredging 32,000 cu. yds. in Deacons Pond Harbor, Falmouth, and for removing a shoal were: J. S. Packard Dredging Co., Providence, R. I., 27.9 cts. and $8,640; Bay State Dredging Co., 27.5 cts.; John H. Gerrish, 26.9 cts. and $9,899; John R. Burke, Wollaston, 25.9 cts.; also for dredging 220,000 cu. yds. in Boston Harbor: Eastern Dredging Co., 27.7 cts.; G. H. Breyerman & Bros., Toledo, Ohio, 26.9 cts.; DALY & HANNAN, Ogdensburg, N. Y., 25 cts. (awarded contract).

STONE JETTY.—Boston, Mass.—Bids will be received until April 14 by the State Harbor and Land Commissioners for furnishing and depositing in place about 2,500 tons granite quarry grout and chips to form a jetty in the southerly side of the mouth of Ipswich River. George E. Smith is Chn., Boston.

REMOVING BOULDERS.—Boston, Mass.—Bids will be received until April 14 by the State Harbor and Land Commissioners, Boston, for removing about 900 tons of boulders from the channel of North River and placing them on the bank above high water mark or otherwise depositing them to the satisfaction of the Board.

✚BATH HOUSE REPAIRS.—Boston, Mass. —The contract for alterations and additions to the L St. bath house was awarded on March 23 to CHRISTOPHER I. BROWN, at $27,993. Other bids were: Rendle & Stoddard, $29,936; A. Varnerin Co., $31,844; John J. Flynn, $32,400; William H. Keyes & Co., $37,221. Richard M. Walsh is Chn. Bath Dept.

DREDGING.—Boston, Mass.—Bids will be received until noon, April 29, by Col. Frederic V. Abbot, Corps Engrs, U. S. A., Boston, for dredging in Weymouth, Fore River, Mass.

✚STONE BINS.—Bridgeport, Conn.—The contract for the construction of timber-stone bins with pile and concrete foundations, including unloading machinery, for the George E. Sykes Co., has been awarded to TOOLE & SUNDERLIN, of Bridgeport, at $12,000.

FIRE ALARM SIGNAL SYSTEM.—New Haven, Conn.—The city has made application to the State Legislature for permission to issue $85,000 of bonds for the installation of a new fire alarm signal system of the silent type.

✚*CHANNEL EXCAVATION. — Buffalo, N. Y.—The contracts for channel excavation in Black Rock Harbor have been awarded as follows: North Section to the GREAT LAKES DREDGE & DOCK CO., Chicago, Ill., at $306,200; Bird Island Section, to the BUFFALO DREDGING CO., Buffalo, at $43,125. Bids were opened on March 14 by Lt.-Col. J. G. Warren, Corps Engrs., U. S. A. List of bidders noted on March 23.

✚NAVAL MILITIA DOCK.—Buffalo, N. Y. The City Council has directed the Commissioner of Public Works to contract with the A. F. CHAPMAN CO., Buffalo, the lowest bidder, for the construction of a dock and berth in the Erie Basin for the use of the Naval Militia.

*DREDGING.—Fort Totten, N. Y.—Bids will be received until 2 p. m., May 3, by the Construction Quartermaster, U. S. A., for dredging channel to wharves at Fort Totten.

DREDGING.—Buffalo, N. Y.—The City Council has ordered the dredging of Buffalo River, Peck Slip and the City Ship Canal to contract depth for maintenance of channel 23 ft., and directed the Commissioner of Public Works to advertise for bids.

IRON STAIRS WALL.—New York, N. Y.—Bids will be received until 3 p. m., April 17, by C. B. J. Snyder, Supt. of School Bldgs., Dept. of Education, Park Ave. and 59th St., Boro. Manhattan, for the erection of outside iron stairs, widening exits, vault light platforms, etc., at Public Schools 70, 81, 106 and 117, Boro. Manhattan; for the erection of a stone retaining wall at Public School 18, Courtland Ave., near 148th St., Boro. The Bronx.

✚ELEVATORS.—New York, N. Y.—The contract for installing two elevators in the New York Assay Office, New York, has been awarded to the OTIS ELEVATOR CO., 17 Battery Pl., New York, at $13,980.

PIERS.—New York, N. Y.—A portion of the plans of Calvin Tomkins, Comr. of Docks, for the construction of seven city-owned piers along the South Brooklyn waterfront was approved by Sinking Fund Commission on March 29. The cost of carrying out the plan will probably reach several millions of dollars. The proposed piers are to be constructed between 53d and 63d Sts. All of the piers will be 1,200 ft. in length. Four will be 150 ft. wide, two 125 ft., and one 60 ft.

REPAIR TO SCOW.—New York, N. Y.—Bids will be received by W. H. Edwards, Comr. of St. Cleaning, until noon, April 11, for furnishing all the labor and materials required for the repairs to Scow No. 38, of the Department of Street Cleaning.

ROAD OIL.—New York, N. Y.—Bids will be received by the President of the Borough of Richmond until noon, April 11, for furnishing all the labor and materials required for furnishing and delivering 75,000 gallons of asphalt road oil.

MANHOLE HEADS AND COVERS, ETC.—New York, N. Y.—Bids will be received until 2 p. m., April 13, by George McAneny, Pres. Boro. Manhattan, for miscellaneous supplies, consisting of building material, iron manhole heads and covers, sewer pipe, etc.

✚ELEVATOR PLANT.—New York, N. Y.—James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., has awarded the contract for the installation of the elevator plant at the new New York City post-office to the OTIS ELEVATOR CO., 17 Battery Pl., New York, at $139,450.

MONUMENT.—New York, N. Y.—The Municipal Art Commission has approved plans for the Maine Monument at 59th St. and Central Park, Boro. Manhattan. A. Piccirilli, 717 East 142d St., is the sculptor selected. H. Van Buren Magonigle, 7 West 38th St., is Arch. The monument will be of marble, on a granite base, with a bronze group. It will be built in three separate sections, covering a space of 150 ft. and is being erected by the Main Monumental Commission, Gen. James Grant Wilson, Chn. Estimated cost, $100,000.

LUMBER.—New York, N. Y.—Bids will be received by Calvin Tomkins, Comr. of Docks, until noon, April 13, for Contract No. 1271, Classes 5 and 6, for furnishing and delivering lumber. Under Class 5, 1,599,000 ft. B. M., is required; and under Class 6, miscellaneous lumber.

LUMBER.—New York, N. Y.—Bids will be received by the Park Board, Dept. of Parks, until 3 p. m., April 13, for furnishing and delivering lumber for the American Museum of Natural History.

✚COAL POCKET.—New York, N. Y.—A contract has been awarded to the TURNER CONSTRUCTION CO., 11 Broadway, New York, for the construction of a reinforced concrete coal pocket with necessary coal conveying machinery, driveways, etc., with a capacity of 3,500 tons, for the Bush Terminal Co., to be erected on the property of the owner, South Brooklyn. Work will start at once.

BATHING PLANT, ETC.—Asbury Park, N. J.—Bids will be received by the Public Grounds Commission, The Casino, Asbury Park, until noon, April 11, for furnishing all labor and materials for the construction of the bathing plant and pool on the east side of Ocean Ave., between First and Second Aves. William P. Sherman is Secy.

*DREDGING.—Bayonne, N. J.—Bids will be received by the Electric Launch Co., Bayonne, until April 18, for dredging yacht basin located at Ave. A and North St., Bayonne.

*FREIGHT LIFT, ETC.—Elizabeth, N. J.—Bids will be received until 3 p. m., April 26, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for an hydraulic freight lift and pumping plant in the U. S. post-office at Elizabeth.

JETTIES.—Ventnor City, N. J.—Bids will be received until 8 p. m., April 12, by the Common Council for furnishing materials and constructing jetties on the beach front.

*SPECIAL CASTINGS, ETC.—Washington, D. C.—Bids will be received until noon, April 25, by Lt.-Col. W. C. Langfitt, Corps Engrs., U. S. A., Washington, for about 200 tons of special iron castings and bolts.

FLOATING CRANES.—Washington, D. C.—Bids will be received until 11 a. m., June 3, by the Bureau of Yards and Docks, Navy Dept., Washington, for two electrically operated floating cranes, complete, one for the U. S. Navy Yard, Boston, and one in the U. S. Naval Station, Pearl Harbor, Hawaii.

IRON FENCE.—Washington, D. C.—Bids will be received until 11.30 a. m., April 21, by James H. Barry, Comr., Marking Graves of Confederate Dead, War Dept., Washington, for furnishing about 834 ft of w.-i. fence and erecting same around the Point Lookout Confederate Cemetery, near Cornfield Harbor, Md.

✚SUBMARINES.—Washington, D. C.—The contract for constructing four submarine torpedo boats has been awarded by the Navy Department to the ELECTRIC BOAT CO., of Quincy, Mass. Two will be built on the Atlantic and two on the Pacific coast. List of bidders noted on March 23.

REVENUE CUTTERS.—Washington, D. C.—Bids will be received until April 12 for the construction of two new revenue cutters. No bids were received on a previous advertisement of the above contract.

✚QUAY WALLS.—Washington, D. C.—The contract for the construction of 242 ft. of granite block quay walls, bids opened by the Bureau of Yards and Docks, Navy Dept., Washington, on March 18, has been awarded to R. H. BEATTY, Fall Fiver, Mass., at $48,500.

STEEL FORGINGS.—Washington, D. C.—Bids were received as follows on April 3 by the Chief of Ordnance, War Dept., Washington, for furnishing steel forgings for 11-in. guns: Item (1) eleven jacket forgings; (2) eleven tube forgings; (3) eleven hoop forgings for 6-in. gun. Bethlehem Steel Co., South Bethlehem, Pa., (1) 21 cts. per lb., (2) 30 cts. per lb., (3) 21 cts. per lb.; Midvale Steel Co., Philadelphia, Pa., same prices.

WAGONS.—Washington Barracks, D. C.—Bids were opened on March 20, by Maj. W. J. Barden, Corps Engrs., U. S. A., Washington Barracks, Washington, D. C., for furnishing wagons, as follows: (a) 38 chest wagons; (b) four tool wagons; (c) ten pontoon wagons: Newton H. Myers, Jeffersonville, Ind., (a) $225 each; (b) $255 each; (c) $205 each; Leonhardt Wagon Mfg. Co., Baltimore, Md., (a) $245, (b) $300, (c) $250; George D. Marks, Brooklyn, N. Y., (a) $223, (b) $322.50, (c) $222; Studebaker Co., South Bend, Ind., (a) $200, (b) $340, (c) $220.

REPAIRS TO SLIPS.—Norfolk, Va.—Bids will be received until 11 a. m., May 6, by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for repairs to slips for torpedo vessels at the U. S. Navy Yard, Norfolk. Specifications are on file at the office of Engineering News, New York.

DREDGING.—Statesville, N. C.—The Drainage Commissioners, Statesville, will receive bids until April 15 for dredging Third Creek Drainage District. The ditch will be 14.7 miles long, requiring the excavation of 437,240 cu. yds. of earth.

✚ENGINE HOUSE—Georgetown, S. C.—Bids were received on March 20 by the city for the construction of a fire engine house. The contract has been awarded to WESTON & BROOKER, of Columbia, S. C., at $9,021.

✚BRICK.—Greenville, S. C.—D. S. HILDEBRAND, of Asheville, N. C., was awarded the contract on March 25 to furnish about 5,000,000 brick to be used in a $1,000,000 cotton mill in Greenville, being erected by J. Edgar Smythe and associates.

PIER.—Mobile, Ala.—The New Orleans, Mobile & Chicago R. R. Co., it is reported, will construct a pier at Choctaw Point, 1,200 ft. long and 200 ft. wide. Estimated cost, about $400,000. B. V. Wright, Laurel, Miss., is Engr. Bldgs. and Bridges.

STONE.—Vicksburg, Miss.—Bids were received as follows, on March 21, by Capt. Clarke S. Smith, Corps Engrs., U. S. A., Vicksburg, for furnishing about 8,400 cu. yds. of light and heavy rip-rap stone for Osachita River, La. and Ark.; (a) 5,400 cu. yds. heavy rip-rap, f. o. b. Monroe, La.; (b) 3,000 cu. yds. light rip-rap: Big Rock Stone & Construction Co., Little Rock, Ark., (a) $2.20, (b) $2.20; J. F. Coleman, Hibernia Bldg., New Orleans, La., (a) and (b) $2.25; James B. Miles, Jr., Helena, Ark., (a) and (b) $1.75; William Parkin, Little Rock, (a) $2.25, (b) 80 cts.; Ward & Commack, Southern Trust Bldg., Little Rock, (a) $3.40 and $1. (b) $2.75 and $1.

DITCH.—Canton, Ohio.—Bids will be received by the Board of Commissioners of Stark County until 10 a. m., April 17, for the construction of the Patton Ditch, in Canton Township. Plans, etc., may be seen at the office of the County Auditor and at the office of F. G. Gilcrest, County Surv.

*LOCK AND DAM.—Cincinnati, Ohio.—Bids for constructing Lock and Dam No. 27, Ohio River, near Ashland, Ky., were received on March 21 by Major H. Jervey, Corps Engrs., U. S. A., as follows: Sheridan-Kirh Contract Co., Cincinnati, Ohio, $633,526; Bates & Rogers Construction Co., Chicago, Ill., $631,441.

TOWBOAT HIRE.—Cincinnati, Ohio.—Bids will be received until 2 p. m., April 26, by Maj. H. Jervey, Corps. Engrs., U. S. A., Cincinnati, for the hire of three towboats to serve as tenders for Ohio River dredges during the present season.

✚VESSELS.—Cleveland, Ohio.—The AMERICAN SHIPBUILDING CO., of Cleveland, James C. Wallace, Pres., has been awarded a contract for three oil carriers for the Standard Oil Co. Estimated cost, $400,000.

DREDGING PUMPS.—Cleveland, Ohio.—Bids will be received until 10 a. m., April 9, by Col. John Millis, Corps Engrs., U. S. A., for constructing and delivering two dredging pumps for the U. S. dredge, Cuyahoga.

ELEVATORS, ETC.—Columbus, Ohio.—Bids will be received until 3 p. m., April 17, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for two electric passenger elevators and two electric dumbwaiters in the extension to the U. S. post-office and court house at Columbus.

✚DREDGING.—Urbana, Ohio.—The contract for dredging the Mad River northward has been awarded to D. E. WEAGE & SON, at $37,500. The only other bidder was George McCrery, at $38,100.

DOCKS.—Evansville, Ind.—The Evans & Terre Haute R. R. Co. is planning to build large shipping docks at Wabash Ave. and riverfront. Gilbert Wright is Secy. and Treas.

GRAIN ELEVATOR.—Mohawk, Ind.—It is reported that the Mohawk Elevator Co. will soon ask for bids for the erection of a large grain elevator.

DITCH.—Monticello, Ind.—Bids will be received by Paul Ward, Drainage Comr., at the office of Uhl & Kassabaum, until 2 p. m., April 8, for the construction of the ditch petitioned for by John C. Vanatta and others in White and Benton Counties.

TELEPHONE SYSTEM.—Noblesville, Ind.—The Prairie Telephone Co., recently incorporated, is in the market, it is reported, for material, equipment and labor for the construction of a modern telephone system. J. A. C. McDonald is Pres. William Malls is Secy.

DRAIN AND LEVEE.—Princeton, Ind.—J. S. Spiker, Engr., Vincennes, Ind., has completed a survey of the Pataka-Wabash River drain and levee. His report will be filed with the court the first week in May. The entire survey, it is reported, extended over about 120 miles. The levee and drain to be constructed and for which bids will be asked is 90 miles long.

DITCH.—Rensselaer, Ind.—The commissioners of Jasper County are planning to let a contract for the construction of the Iroquois Ditch. Estimated cost, $104,763.

DITCH.—Valparaiso, Ind.—The Circuit Court has ordered the construction of the Burnes Ditch through Porter and Lake Counties. Estimated cost, $800,000. The ditch will reclaim 200,000 acres of swamp land. The Commissioners of Porter and Lake County will let the contract.

✚FREIGHTER. — Detroit, Mich. — The GREAT LAKES ENGINEERING CO., foot of Orleans St., Detroit, has been awarded the contract by Boland & Cornelius, of Buffalo, N. Y., for the construction of a new steel freighter to be 524 ft. long, 54 ft. beam. Steamer will be equipped with triple expansion engines and Scotch boilers. Estimated cost, $400,000.

PIER WORK.—Grand Rapids, Mich.—Bids will be received until 3 p. m., April 27, by Lt.-Col. C. S. Riche, Corps Engrs., U. S. A., Grand Rapids, for the construction and repair of piers at South Haven, Grand Haven, Muskegon, Frankfort and Petoskey Harbors, Mich.

✚PILES AND CONCRETE. — Marquette, Mich.—The Lake Superior — Ishpeming Ry. Co., H. R. Harris, Gen. Mgr., and R. C. Young, Ch. Engr., has awarded to the RAYMOND CONCRETE PILE CO., of Chicago and New York the contract for driving all of the piles and placing all of the concrete for a 200-pocket ore-dock and approach trestle to be built at Presque Isle Harbor, Marquette. Approximately 9,000 round piles, 3,000 sheet piles and 30,000 cu. yds. of concrete will be required for this work.

DITCH.—Amboy, Ill.—Bids will be received until April 11 by the Commissioners of Maple Grove Drainage District at the office of J. M. Egan, Jr., Amboy, for constructing 34,000 lin. ft. of open ditch 30 ft. wide. Total estimated excavation, 260,000 cu. yd. of earth. F. N. Vaughan is Secy.

✚TILE.—Cerro Gordo, Ill.—Bids have been opened by H. C. Phillips, Clk. Comrs. Union Drainage District No. 5, Cerro Gordo, for furnishing and laying 13,500 ft. of 18, 16, 15 and 14-in. vitrified drain tile and 4,100 ft. of 8-in. red shale drain tile. Contract has been awarded to J. D. HUTTE & CO., of Champaign, Ill. W. J. Day, Bement, is Engr.

DITCHES.—Prophetstown, Ill.—Bids will be received until April 12 by F. W. Sears, Engr., Prophetstown, by the Commissioners of the Union Special Drainage District of Tampico, Prophetstown and Hume, for constructing ditches requiring the removal of about 85,000 cu. yds.

*PONTOONS.—Rock Island, Ill.—Bids were received as follows on March 14 by Maj. C. Keller, Corps, Engrs., U. S. A., Rock Island, for building and delivering 40 steel pontoons, complete: Des Moines Bridge & Iron Co., Pittsburg, Pa., $59,500, delivered at St. Louis, Mo.; Milwaukee Bridge Co., Milwaukee, Wis., $36,850, delivered at Illinois and Michigan Canal, Lockport or Joliet, Ill.; Springfield Boiler & Mfg. Co., Springfield, Ill., $47,800, delivered Mississippi River at Grafton, Ill.; Stupp Bros. Bridge & Iron Co., St. Louis, Mo., $44,975, delivered at St. Louis; American Bridge Co., Pittsburg, Pa., $47,500, delivered at St. Louis.

FIRE APPARATUS. — Barneveld, Wis. — John Minix is interested in the purchase of fire apparatus for a small village, such as hose carts, fire engines, hose, chemical engines, etc.

PIERS.—Duluth, Minn.—The Duluth Union Labor Association will receive bids until April 7 for constructing concrete piers and moving buildings when piers are completed.

WHARF.—Kansas City, Mo.—The Board of Public Works is taking bids for the construction of a new wharf at the foot of Main St. Estimated cost, $40,000.

TUNNELS.—St. Louis, Mo.—Bids will be received until noon, April 7, by the Board of Public Improvements for a reinforced concrete tunnel under kitchen corridor at City Hospital, and for a concrete pipe tunnel from the new City Hall to the Municipal Courts Building. Maxime Reber is Pres.

WHARF. — Corpus Christi, Tex. — Bonds for $50,000 have been issued by the city for the construction of a municipal wharf, which will be constructed at an early date to take care of the sea-going trade passing through and originating here. The wharf will be 1,000 ft. in length by 200 ft. in width, with an apron on the seaward side 500 ft. in width, and will be built in connection with the 12-ft. channel being dredged by the government from this city to the Gulf. A turning basin, 1,000 ft. square, will be dredged directly in front of the wharf by the government, as outlined in the plans for the 12-ft. channel.

✚STOCK PAVILION FRAME.— Dallas, Tex.—The State Fair Association, of Dallas, has awarded the contract for the steel frame for the live stock pavilion to be built on the State Fair Grounds to the MOSHER MFG. CO., of Dallas.

✚IMMIGRATION STATION. — Galveston, Tex.—M. C. BOWDEN, of Galveston, has been awarded the contract for constructing a building on Pelican Island, Galveston Harbor, to be used as an immigration station, at $55,000.

✚LEVEE WORK.—Van Buren, Ark.—The contract has been awarded to E. C. ROYCE, of Pine Bluff, Ark., for concrete work on the Crawford County Levee at $20,000.

DRY KILN.—Bremerton, Wash.—Bids will be received until 11 a. m., May 6, by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for a dry kiln at the U. S. Navy Yard, Puget Sound, Bremerton. R. C. Hollyday is Ch. of Bureau.

DREDGING.—Raymond, Wash.—The channel of the Willapa River will be dredged. Congress has appropriated $223,000 for the work. The first $100,000 is available at once. Estimate of the work is 16 cts. per cu. yd.

✚CANAL.—Seattle, Wash.—The contract has been awarded by Maj. C. W. Kutz, Corps Engrs., U. S. A., Seattle, to HOLT & JEFFERY for digging one mile of the Lake Washington Canal. The contract calls for the excavation of 4,000 lin. ft. of the canal, beginning near the spillway at Fremont and extending toward Salmon Bay. There are 267,000 cu. yds. of dirt to be moved. Bids for the remainder of the work will be asked.

✚TRAMWAY.—Spokane, Wash.—A contract for the construction of an 8,500 aerial tramway has been let by the Standard Silver-Lead Mining Co., to B. C. RIBLET & BRO. Estimated cost, about $25,000.

DREDGING.—Marshfield, Ore.—The Board of County Commissioners, Marshfield, will receive bids until 10 a. m., April 11, for dredging approximately 3,700 ft. of Kentuck Inlet to Coos Bay, according to specifications filed in the office of the Port Engineer.

CASTINGS, PIPE, ETC.—Quebec, Que.—Bids will be received by J. Gallagher, W.-Wks. Engr., until April 11, for iron castings, brass castings, lead pipe and pig lead, cement, brick and drain pipes.

IRON, ETC.—Benicia, Cal.—Bids will received until May 1 by Lt.-Col. J. W. Benet, Commanding Officer, Benicia Arsenal, for furnishing during the fiscal year ending June 30, 1912, bar iron, lumber, cement, electrical supplies, etc.

✚SHED.—Fort Mason (San Francisco post-office), CAL.—The San Francisco Bridge Co., Monadnock Bldg., San Francisco, has awarded a contract to JOHN J. LEONARD, 180 Jessie St., San Francisco, for the erection of a wharf shed at Ft. Mason, at about $28,781.

DREDGING.—Los Angeles, Cal.—Plans for dredging Los Angeles Harbor south of Wilmington and improving some of the streets in Wilmington with the dredge material were submitted to the Board of Public Works by Homer Hamlin, City Engr., and approved on March 25. It is proposed to dredge from 800,000 to 900,000 cu. yds. from the harbor in front of Canal, Fries and other streets and in the vicinity of the 37 acres of city land north of Mormon Island. It is also proposed to dredge enough material from the turning basin south of Water St. to make an adequate turning basin and mooring area in front of the municipal wharf now under construction and for a municipal ferry landing.

ALARM SYSTEM.—Los Angeles, Cal.—W. E. Corey, Elect. Engr., San Francisco, has reported and recommended to the Board of Fire Commissioners the installation of a police and fire alarm system, to cost $102,505, as follows: Central office equipment, $22,500; 150 additional fire-alarm boxes, $12,000; underground cables to replace leased ones, $13,275; 150 additional police boxes, $12,000; 240 red lights for police signals, $6,000; 267 miles of overhead wire for extensions, $16,690.

✚METAL FURNITURE.—Los Angeles, Cal. Morgan Walls & Morgan, Archs., Story Bldg., Los Angeles, have awarded a contract to the GENERAL FIREPROOFING CO., of Youngstown, Ohio, for installing metal furniture in the archives building at Melrose and Van Ness Aves. for the Title Insurance & Trust Co., at $11,075.

WHARF.—Marysville, Cal.—Leslie B. Crook, Surv., has been authorized to make a permanent survey and ascertain the actual cost of building the grade and wharf on the river.

BREAKWATER. — Monterey, Cal. — The Governor has signed the bill appropriating $200,000 for the construction of a breakwater in Monterey Bay. Noted on March 23.

TUNNEL.—Oakland, Cal.—The Governor has signed a bill, it is reported, allowing the County Board of Supervisors of Alameda County to spend $3,500 for surveys and to take necessary steps to raise funds, from $2,000,000 to $4,000,000, for boring a tunnel beneath the estuary, to connect Alameda with Oakland and dispense with the draw-bridges.

✚DREDGING.—Redwood City, Cal.—The Government has awarded a contract to the J. C. FRANKS DREDGING CO., Phelan Bldg., San Francisco, Cal., for dredging 100,000 cu. yds. in Redwood Creek, at $12,000.

PARK IMPROVEMENT, ETC.—Riverside, Cal.—Bonds for $30,000 have been sold for the improvement of Fairmont Park, and for $20,000 for providing additional fire protection.

✚REBUILDING LEVEE.—Sacramento, Cal.—The contract has been awarded to the NEW GRAND ISLAND DREDGING CO. for rebuilding a portion of the river levee for the West Sacramento Co., opposite Sacramento. Haviland & Tibbetts are Engrs., Alaska Commercial Bldg., San Francisco, Cal.

✚TIES.—San Francisco, Cal.—The Board of Public Works has awarded the contract for furnishing a quantity of redwood crossties for the Geary St. municipal railway to the JULIUS HEYMAN CO.

DAM.—San Francisco, Cal.—Haviland & Tibbitts, Alaska Bldg., San Francisco, are preparing plans for the construction of a large earth dam in Yolo County. Estimated cost, $125,000.

STORAGE BUILDING ETC.—San Francisco, Cal.—Bids were received as follows, on March 15, for a storage and projectile-loading building at Benecia Arsenal: W. N. Concannon Co., Monadnock Bldg., San Francisco, according to plans and specifications, using wood window frames and sash throughout and "Colusa sandstone" for rubble, $40,165. Lambley & Ludden, Benecia, Cal., according to plans and specifications, with Fenestra sash, $38,584; substituting "Colusa sandstone" for granite, $37,368; substituting "Colusa sandstone" for granite, and substituting other plumbing fixtures for those specified, $37,293. American Construction Co., Monadnock Bldg., San Francisco, according to plans and specifications, $33,944. Gutleben Bros., 927 Monadnock Bldg., San Francisco., according to plans and specifications, $35,000. Pringle, Dunn & Co., 338 Pine St., San Francisco, according to plans and specifications on site selected, $31,850; if built on level site, deduct $6,500. W. W. Anderson, 117 Grant Ave., San Francisco, according to plans and specifications, $34,315; according to plans and specifications, using "Colusa sandstone" or local stone, $32,187. E. D. Crowley & Co., 127 Montgomery St., San Francisco, according to specifications, $29,894. Rickon-Ehrhart Engineering & Construction Co., San Francisco, according to plans and specifications, $43,174. Ferrolite Co., 338 Pine St., San Francisco, according to plans and specifications, $35,000.

WALL. — San Mateo, Cal.—Bids for constructing a concrete foundation wall on the northerly side of Baldwin Ave., west of Ellsworth Ave., will be received by the Board of Public Works until 8 p. m., April 10. Joseph B. Gordon is Clk.

✚ROLLER COASTER.—Venice, Cal.—The FRED INGERSOLL CO., of Los Angeles, Cal., has secured contract for the construction of a racing roller coaster here at $61,000. There will be 8,000 ft. of trackage in the structure and extensive decorative work.

IMPROVING LOCKS.—Cornwall, Ont.—Bids will be received until April 15 by L. K. Jones, Secy., Dept. Railways and Canals, Ottawa, Ont., for improving the upper entrance to Lock No. 28 and Lock No. 19.

✚OIL STORAGE TANK.—Fort William, Ont.—The Imperial Oil Co. has awarded to the BARNETT-McQUEEN CO. the contract for the construction of a 1,500,000-gallon oil storage tank.

GRAIN ELEVATORS.—Fort William, Ont.—The Grand Trunk Pacific R. R. Co. is having plans prepared for six grain elevators, with a total capacity of 60,000,000 bushels. E. J. Chamberlin is Gen. Mgr., Winnipeg, Man.

VESSEL.—The Department of Marine and Fisheries has decided to build a 100-ft. vessel, at a cost of $75,000, for use on the Ottawa River.

FIRE APPARATUS.—Ottawa, Ont.—Bids will be received until noon, April 10, by John Henderson, City Clk., for a twin-tank automobile combination chemical fire engine and hose wagon.

*STEAM SHOVELS, LOCOMOTIVES, ETC.—Toronto, Ont.—Bids will be received by G. R. Geary, Mayor and Chn. Bd. of Control, until noon, April 11, for delivering the following: Two full-circle swing traction steam shovels, 1¼-yd. dipper; six saddle tank locomotives, 36-in. gage; 40 4-yd. dump cars, or 54 3-yd. dump cars, 36-in. gage; four double truck flat cars, 36-in. gage; 200 tons of 30-lb. steel rail; 24 No. 5 switch leads; 75 kegs of spikes; 1,800 pair of fish plates; 20 kegs of bolts and nuts. Specifications and form of proposal may be obtained from the Department of Railways, Bridges and Docks.

✚PIPE.—Toronto, Ont. — The city has awarded the following contracts for pipe: 60-in., to the LOCK JOINT PIPE CO., at $19.40 per 4-ft. length; 66-in., to JENNINGS & ROSS, at $20.50 per 4-ft. length.

CEMENT.—Winnipeg, Man.—The city has decided to at once ask for bids for the supply of from 25,000 to 30,000 bbls. of cement. It is estimated that 100,000 bbls. will be required this year. H. N. Ruttan is City Engr.

MONUMENT.—Winnipeg, Man.—The Burns Society, of Winnipeg, has decided to erect a monument here in honor of Robert Burns. Estimated cost, $20,000. Address Hon. Colin H. Campbell.

✚ASPHALT.—Winnipeg, Man.—The city has awarded the contract to the CANADIAN MINERAL RUBBER CO., of Montreal, Que., for the supply of from 1,000 to 1,500 tons of asphalt, at $25 per ton.

✚LUMBER.—Edmonton, Alta.—The Grand Trunk Pacific Co. has awarded a contract to the CANADIAN WESTERN LUMBER CO., of Vancouver, B. C., for 6,000,000 ft. of mixed lumber, at $141,000.

FIRE APPARATUS.—Vancouver, B. C.—Bids will be received until 4.30 p. m., April 29, by William McQueen, City Clk., for one 85-ft. ladder-truck and one chemical engine for the Fire Department.

TUG.—Vancouver, B. C.—The contract for the construction of a tug for Vancouver has been awarded by the Department of Public Works of Canada, Ottawa, Ont., to the WALLACE SHIPYARDS, LTD., of Vancouver, B. C., at $64,950.

U. S. POSSESSIONS.

FLOATING CRANES—Hawaii.—See item under Miscellaneous Contracts.—Floating Cranes, Washington, D. C.

BOILERS, ETC.—Hawaii.—Bids will be received until 11 a. m., April 29, by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for six 450-HP. water-tube boilers, equipped with oil-burning apparatus, superheaters, a flue and a stack, furnished and installed in the central power plant, U. S. Naval Station, Pearl Harbor, H. T. R. C. Hollyday is Ch. of Bureau.

EMERGENCY DAMS.—Panama.—Bids were received as follows, on March 30, by Capt. F. C. Boggs, Gen. Pur. Officer, Isthmian Canal Commission, Washington, D. C., for furnishing three pairs of emergency dams at the upper locks of Gatun, Pedro Miguel and Miraflores, and for furnishing and delivering certain tools, equipment and spare and repair parts, (a) Gatun, (b) Pedro Miguel, (c) Miraflores: (The prices for Gatun and Pedro Miguel are the same in each case.) McClintic-Marshall Construction Co., Pittsburg, (a) (b) one, $390,938; two, $781,875; (c) one, $357,961; two, $715,922. Pennsylvania Steel Co., Steelton, Pa., (a) one, $411,626; two, $823,251; (c) one, $378,059; two, $756,118. United States Steel Products Co., New York, (a) (b) one, $405,709; two, $811,419; (c) one, $372,195; two, $744,391.

*MITER GATE-MOVING MACHINES.—Panama.—Bids will be received until 10.30 a. m., May 27, by Capt. F. C. Boggs, Corps Engrs., U. S. A., Gen. Pur. Officer, Isthmian Canal Comn., Washington, D. C., for furnishing miter gate-moving machines, miter forcing machines and electric motors for same, for the lock gates. Blanks and general information relating to this Circular (No. 627) may be obtained at Washington or at the offices of the Assistant Purchasing Agents, 24 State St., New York; 614 Whitney-Central Bldg., New Orleans, La., and 1086 North Point St., San Francisco, Cal.; also from the U. S. Engineer Offices in the following cities: Seattle, Wash.; Los Angeles, Cal.; Baltimore, Md.; Philadelphia, Pa.; Pittsburg, Pa.; Boston, Mass.; Buffalo, N. Y.; Cleveland, Ohio; Cincinnati, Ohio; Chicago, Ill.; St. Louis, Mo.; Detroit, Mich.; Milwaukee, Wis.; St. Paul, Minn.; Chattanooga, Tenn.; Louisville, Ky.; Mobile, Ala., and Galveston, Tex.; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill., and Chamber of Commerce and Board of Trade, Tacoma, Wash. Advertised last week.

*RACK RAILWAY MATERIAL.—Panama.—Bids were received as follows on March 24, by the General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., for furnishing rack railway material for Gatun, Pedro Miguel and Miraflores Locks, as follows: Class 1, 3,212,544 lbs. steel cross-ties, 61,300 lbs. tie clips, 1,934,240 lbs. rolled steel conductor slot covers, 1,273,000 lbs. steel channels, 721,250 lbs. steel conductor rails; Class 2, 6,554,000 lbs. carbon-steel castings (rack), 3,870 lbs. miscellaneous steel castings; Class 2, alternative, 1,341,410 lbs. carbon-steel castings (rack), 4,834,350 lbs. semisteel castings, 3,600 lbs. semisteel castings, miscellaneous; Class 3, 113,950 lbs. malleable iron cover plates, 332,962 lbs. malleable-iron conductor-rail brackets, 15,270 lbs. malleable iron washers, 19,554 lbs. c.-i. washers; Class 4, 831,744 lbs. copper conductor rails, 26,347 lbs. copper splice bars, 6,938 lbs. copper rail bonds, 78,310 lbs. brass bolts, nuts and set screws; Class 5, 24 cross-overs and four turnouts; Class 6, 55,708 porcelain insulators; Class 7, 387,820 lbs. steel bolts, nuts and set screws, 27,854 impregnated fiber liners, 749 lbs. sheet lead, 90 hinge pins, 90 springs; Class 8, 33 bumping posts: Enterprise Foundry Co., San Francisco, (2 alternative), $281,285; R. C. Hoffman, Baltimore, (2) $247,560; (5) $158,442; McConway & Torley Co., Pittsburg, (2) $303,957; National Malleable Casting Co., Cleveland, Ohio, (2) $580,371, (3) $16,511; Oil Well Supply Co., Pittsburg, (3) $23,644; Oliver Iron & Steel Co., Pittsburg, (7) unit prices only; Penn Steel Casting & Machine Co., Chester, Pa., (2) $321,336; J. F. Pennell, 45 Broadway, New York, (3) $19,572; Pittsburg High Voltage Insulator Co., Pittsburg, (6) $8,356; Railway & Traction Supply Co., Chicago, (8) $2,227; Rosedale Foundry & Machine Co., Pittsburg, (2) $501,021, (2 alternative) $267,959; Ross-Meehan Foundry Co., Chattanooga, Tenn., (3) $15,848; United Engineering & Foundry Co., Pittsburg, (2) $300,350, (2 alternative) $217,614; American Malleables Co., Washington, (3) $16,806; Baldt Steel Co., Newcastle, Del., (2) $343,632; American Steel Foundries, Chester, Pa., (2) $278,709; United States Steel Products Co., New York, (1) $130,119, alternativ[illegible] [illegible],601, (4) part, $8,280, (5) $347,198; W[illegible] [illegible]house Electric & Mfg. Co., Pittsburg, (6) [illegible]; Wheeling Mould & Foundry Co., [illegible]ling, W. Va., (1) $195,920, (2) $343,[illegible] (2 alternative) $304,960, (3) $20,679, (4) [illegible],551, (7) $15,902; General Electric Co., Schenectady, N. Y., (4) part $2,000; W[illegible] Wharton, Jr., Co., Inc., Philadelphia, [illegible] $162,200; For[illegible] Bros. & Co., New York, [illegible] $5,287, (8) $2,557.

CONTRACT PRICES.

(*Denotes that this work [illegible] advertised in Engineering News.)

WATER MAINS.—Grandview Heights, Ohio.—Bids were received on M[illegible] 21 for constructing water mains, [illegible] (A) James Westwater Co., Columbus, [illegible] (B) C. T. McCracken & Co., Columbus, [illegible] (C) T. C. Brooks & Son, Jackson, M[illegible] (D) Harry D. Shaw, Columbus, Ohio; (E) Wm. M. Graham, Columbus, Ohio. [illegible] item bids were:

WATER MAINS, GRANDVIEW HEIGHTS, OHIO.

	A	B	C	D	E
29,595 lin. ft. excavation in trench	$0.15	$0.29	$0.19½	[illegible]	[illegible]
16,289 lin. ft. 6-in. c.-i. Class B pipe laid	.60	.50	.52	.50	[illegible]
5,878 lin. ft. 8-in. c.-i. Class B pipe laid	.75	.70	.73	.70	[illegible]
1,837 lin. ft. 8-in. c.-i. Class C pipe laid	.80	.75	.78½	.80	[illegible]
5,591 lin. ft. 12-in. c.-i. Class C pipe laid	1.50	1.27	1.34	1.50	1.30
9.6 tons c.-i. pipe specials laid	60.00	60.00	60.00	[illegible]	60.00
58 6-in. gate valves set, each	17.00	15.50	15.50	[illegible]	20.00
10 8-in. gate valves set, each	23.00	21.50	21.50	[illegible]	30.00
4 12-in. gate valves set, each	38.00	36.00	36.25	[illegible]	50.00
36 hydrants set, each	36.00	36.00	33.50	[illegible]	40.00
1 air vent, lump sum	10.00	25.00	23.00	[illegible]	8.00
Totals	$31,727	$32,475	$30,530	[illegible]	$32,5[illegible]

✚SEWERS.—Jacksonville, Fla.—Bids were received on March 15 by the Water and Sewer Department, R. N. Ellis, Supt., for constructing sewers, from: (A) F. W. LONG & CO., Jacksonville (awarded contract); (B) Bryan & Co., Jacksonville; (C) Logan Concrete & Engineering Co., Jacksonville. The item bids were as follows:

SEWERS, JACKSONVILLE, FLA.

	A	B	C
250 lin. ft. 12-in. c.-i. sewer pipe	$2.88	$4.00	$3.50
940 lin. ft. 10-in. c.-i. sewer pipe	2.54	3.50	3.25
600 lin. ft. 10-in. terra cotta pipe	1.57	2.25	1.50
13,700 lin. ft. 8-in. terra cotta pipe	1.22	1.19	1.40
500 lin. ft. 30-in. brick drain, circular design	4.54	4.50	4.75
300 lin. ft. 24-in. brick drain, circular design	3.95	4.65	4.75
765 lin. ft. 12-in. terra cotta	1.48	1.87	1.73
2,610 lin. ft. 15-in. reinforced-concrete pipe, drain	1.88	2.30	1.98
39 manholes with covers	46.00	40.00	40.00
9 manholes with covers	46.00	40.00	50.00
Totals	$32,559	$35,199	$36,66[illegible]

✚*SANITARY SEWER SYSTEM.—Moundsville, W. Va.—Bids were received on March 21, by Oscar B. Bonar, for the construction of a sanitary sewer system and surface drainage sewers, from: (A) Henning-Vineyard Co., Evansville, Ind.; (B) Thorney Pietro, Morgantown, W. Va.; (C) Whiting-Middleton Construction Co., Baltimore, Md.; (D) P. J. Curran, Knoxville, Tenn.; (E) J. B. McClain & Co., Newport, Ky.; (F) Van Meter Construction Co., Steubenville, Ohio; (G) Althous Construction Co., St. Louis, Mo.; (H) Trainer & Scanlon, Huntington, W. Va.; (I) James Ferry & Sons, Pittsburg, Pa.; (J) Roser & Maloney, Bellaire, Ohio; (K) Central Construction Co., Pittsburg, Pa.; (L) N. O'Hern Co., Pittsburg, Pa.; (M) John W. Stringer, Rayland, Ohio; (N) Thomas S. Savage, Parkersburg, W. Va.; (O) W. H. & C. F. Thompson, Baltimore, Md.; (P) B. F. SWEETEN & SON, Camden, N. J. (awarded contract). The item bids were as follows:

SANITARY SEWER SYSTEM, MOUNDSVILLE, W. VA.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
17,900 lin. ft. of trench less than 6 ft.	$0.40	$0.20	$0.75	$0.34	$0.34	$0.24	$0.40	$0.25	$0.26	$0.29	$0.30	$0.30	$0.35	$0.35	$0.47	$0.26
86,700 lin. ft. of trench 6 to 8 ft. deep	.70	.25	1.16	.42	.45	.35	.51	.40	.36	.31½	.40	.40	.39	.45	.52	.35
17,000 lin. ft. of trench 8 to 10 ft. deep	1.10	1.30	1.59	.56	.68	.44	.67	.90	.52	.46	1.10	.70	.57	.65	.77	.41
5,800 lin. ft. of trench 10 to 12 ft deep	1.40	.75	1.99	.72	.80	.70	.93	1.15	.70	.91	1.25	1.00	.91	.85	1.12	.65
1,900 lin. ft. of trench 12 to 14 ft. deep	1.50	.85	2.91	.83	1.02	.90	1.32	1.40	.93	1.09	1.50	1.65	1.15	1.10	1.85	.95
1,650 lin. ft. of trench 14 to 16 ft. deep	3.50	.95	3.37	1.35	1.70	1.25	1.97	1.85	1.37	1.65	1.75	1.80	1.50	1.40	2.48	1.20
1,600 lin. ft. of trench 16 to 18 ft. deep	4.50	1.00	4.48	1.75	3.18	1.40	2.13	2.40	1.78	2.57	2.00	2.20	1.85	1.70	4.84	1.80
1,580 lin. ft. of trench 18 to 20 ft. deep	5.00	2.00	5.50	2.60	4.80	1.50	2.85	3.00	2.45	2.94	2.50	2.80	2.25	2.00	5.05	2.10
1,600 lin. ft. of trench 20 to 22 ft. deep	7.00	3.00	5.16	3.70	5.79	1.70	4.50	3.70	2.70	2.94	3.00	3.20	2.75	2.25	5.68	2.40
500 lin. ft. of trench 22 to 24 ft. deep	11.00	4.00	7.84	4.50	8.75	1.93	6.50	4.50	3.95	3.24	3.50	4.25	3.35	2.60	6.16	2.80
220 lin. ft. of trench 24 to 26 ft. deep	14.00	5.00	5.94	5.00	10.80	2.25	8.50	5.50	4.50	3.49	4.00	5.00	4.09	2.90	4.73	3.30
225 lin. ft. of trench 26 to 28 ft. deep	16.00	6.00	9.59	6.00	12.50	2.43	9.00	6.60	5.80	4.79	4.50	5.25	4.28	3.50	9.62	3.90
285 lin. ft. of trench 28 to 30 ft. deep	17.00	7.00	11.05	7.00	13.50	2.61	9.50	7.75	7.60	5.28	5.00	5.50	4.67	4.00	10.20	4.60
370 lin. ft. of trench 30 to 32 ft. deep	20.00	8.00	12.50	8.00	14.50	3.00	10.00	9.00	8.25	5.75	5.00	5.75	4.86	4.75	10.88	5.50
65,850 lin. ft. of 6-in. vitrified sewer pipe	.08	.10	.078	.14	.11	.13	.12¼	.09½	.14	.20	.09	.25	.11	.09	.11	.05
24,490 lin. ft. of 8-in. vitrified sewer pipe	.15	.14	.1009	.20	.14	.14	.17½	.14	.16	.22	.12	.28	.14	.12	.15	.08
10,280 lin. ft. of 10-in. vitrified sewer pipe	.20	.19	.18	.27	.19	.17	.27½	.22	.23	.29	.20	.42	.19½	.20	.21	.12
8,400 lin. ft. of 12-in. vitrified sewer pipe	.22	.24	.24⅞	.36	.23	.21	.34½	.28	.29	.32	.25	.61	.23½	.25	.25	.16
8,580 lin. ft. of 15-in. vitrified sewer pipe	.35	.32	.36	.52	.30	.27	.48½	.36	.39	.39	.40	.80	.33	.35	.34	.22
1,250 lin. ft. of 18-in. vitrified sewer pipe	.50	.43	.48	.75	.50	.40	.66	.45	.52	.48	.50	1.00	.43	.45	.45	.27
3,900 lin. ft. of 20-in. vitrified sewer pipe	.60	.55	.69	1.16	.70	.65	.82½	.65	.81	.72½	.75	1.16	.80	.55	.60	.42
4,860 lin. ft. of 22-in. vitrified sewer pipe	.75	.71	.89	1.32	.90	.90	1.03	.85	.95	.76	.90	1.53	1.03	.75	.80	.54
4,130 lin. ft. of 24-in. vitrified sewer pipe	.80	.73	.99	1.58	.95	.94½	1.21½	1.00	1.05	.80½	1.20	1.69	1.07	.85	.85	.71
200 lin. ft. of 27-in. vitrified sewer pipe	1.40	1.39	1.69	2.00	1.80	1.75	1.98	1.75	1.65	1.29	1.50	3.02	1.85	1.50	1.55	1.10
760 lin. ft. of 30-in. vitrified sewer pipe	1.80	1.73	2.08	2.45	2.25	2.10	2.44½	2.10	2.00	1.54	1.73	3.92	2.22	1.95	1.85	1.40
1,630 lin. ft. of 33-in. vitrified sewer pipe	2.50	1.98	3.17	2.90	2.40	3.45	3.32	2.50	2.30	2.31	2.50	4.30	2.89	2.50	2.40	2.15
2,810 lin. ft. of 36-in. vitrified sewer pipe	2.60	2.22	3.52	3.30	2.75	3.80	3.92	3.00	2.55	2.57	2.75	4.75	3.14	3.00	2.70	2.30
24-in. concrete sewer	1.50	2.00	1.92	....	1.00	1.50	....	3.00	1.40	1.80	1.30	1.69	2.00	....	1.26	1.70
27-in. concrete sewer	2.10	2.25	2.33	....	2.00	2.25	....	3.25	1.75	1.80	1.45	3.02	2.85	....	1.65	1.10
30-in. concrete sewer	2.90	2.50	3.25	....	2.25	2.60	....	3.50	2.00	1.76	1.65	3.92	3.50	....	1.95	1.40
33-in. concrete sewer	3.40	2.75	4.05	....	2.50	3.33	....	3.75	2.30	2.31	2.20	4.30	3.90	....	2.55	2.15
36-in. concrete sewer	3.90	3.25	4.32	....	3.00	3.45	....	4.00	2.70	2.57	2.35	4.75	4.50	....	2.85	2.30
6,000 ft. of 4-in. vertical pipe	.10	.09	.38	.10	.06	.07	.09¼	.05	.15	.10	.07	.10	.14	.25	.10	.10
5,000 ft. of 4-in. underdrain	.20	.25	.15	.09	.08	.10	.10½	.20	.15	.20	.15	.20	.23	.25	.15	.20
9,000 ft. of 6-in. underdrain	.25	.28	.20	.11	.10	.11	.17¼	.25	.20	.25	.20	.25	.25	.40	.20	.30
5,000 ft. of 8-in. underdrain	.30	.30	.25	.13	.12	.12	.24	.30	.25	.26	.20	.30	.30	.50	.25	.40
300 cu. yds. of rock excavation	5.00	3.00	4.00	4.00	3.00	1.00	10.00	5.00	2.30	2.00	2.00	1.00	.01	3.00	2.00	1.00
50 cu. yds. of concrete	10.00	10.00	10.00	10.00	8.00	8.00	15.00	12.00	10.00	7.00	10.00	12.50	9.00	6.00	7.50	8.00
420 manholes, 8 ft. deep or less, each	40.00	50.00	6.80	30.00	35.00	30.00	62.00	35.00	32.00	33.00	40.00	30.00	32.00	35.00	4.00	30.00
260 ft. of manholes below 8 ft.	5.00	3.00	6.80	5.00	4.00	3.00	5.50	2.50	4.00	3.00	4.00	5.00	3.75	4.00	4.75	3.00
6 lampholes, each	7.00	5.00	8.00	12.00	8.00	10.00	15.00	10.00	10.00	15.00	18.00	7.00	10.00	10.00	5.00	10.00
8 flushtanks, each	60.00	75.00	100.00	60.00	45.00	60.00	100.00	60.00	80.00	50.00	60.00	8.00	70.00	70.00	150.00	70.00
115 inlets with catch-basins, each	30.00	35.00	65.00	20.00	35.00	40.00	50.00	40.00	32.00	25.00	40.00	50.00	28.00	15.00	30.00	35.00
22 tons of c.-i. pipe	40.00	50.00	40.00	50.00	40.00	50.00	100.00	40.00	40.00	90.00	50.00	50.00	30.00	30.00	35.00	60.00
5 M. ft. B. M. lumber	25.00	45.10	35.00	30.00	25.00	40.00	30.00	25.00	20.00	28.00	20.00	30.00	35.00	40.00	25.00	30.00
24-in. reinforced concrete sewer	....	....	1.18	....	....	....	....	1.20	....	....	....	....	....	....	1.10	....
27-in. reinforced concrete sewer	....	....	1.56	....	....	....	....	1.75	....	....	....	....	....	....	1.60	....
30-in. reinforced concrete sewer	....	....	1.83	....	....	....	....	2.10	....	....	....	....	....	....	1.90	....
36-in. reinforced concrete sewer	....	....	2.49	....	....	....	....	2.50	....	....	....	....	....	....	2.70	....
Ys for house connections (lump sum)	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00
Totals	$228,913	$151,944	$274,217	$168,965	$180,087	$138,216	$207,609	$175,563	$163,500	$153,511	$171,000	$202,609	$144,727	$155,932	$180,6[illegible]	$138,257

LOCK AND DAM, ASHLAND, KY.—Bids were received on March 21 by Major H. Jervey, Corps Engrs., U. S. A., for constructing Lock and Dam No. 29, Ohio River, near Ashland, from: (A) Sheridan-Kirk Contract Co., Cincinnati, hio; (B) Bates & Rogers Construction Co., Chicago, Ill. The iem bids were:

PORT WORK.—Chile.—The Government has asked for bids for hydraulic engineering work at the ports of Valparaiso and San Antonio. It is estimated that an expenditure of several millions of dollars will be required. The bids will be opened, it is reported, on July 22.

MESSRS FREDERICK L. CRANFORD, J. C. Meem and H. P. Moran, of Frederick L. Cranford, Contractors and Engineers, have moved their office from 190 Montague St., Brooklyn, to 177 Montague St., Brooklyn, N. Y.

THE BROWNING MANUFACTURING CO., Cleveland, Ohio, have moved their sales offices to the plant at Mansfield, Ohio. This company builds scraper bucket excavators, orange peel buckets, ballast unloaders, shovels and dredges.

MR. JAMES M. MOTLEY, having resigned as President of Motley, Green & Co., Inc., will carry on the business of contracting for the supply of railway and mining equipment and material under his own name at 71 Broadway, New York, N. Y.

MR. W. V. KNAUSS, Treasurer of the Bethlehem Foundry & Machine Co., handed in his resignation, to take effect April 1. Mr. Knauss retires after an honorable business career of over forty-five years. Miss Iva E. Krause succeeds Mr. Knauss as Treasurer of this company.

TRENTON FOUNDRY & MACHINE CO., 90 West St., New York, N. Y., manufacturers of manhole castings, forgings and machine castings, has recently been incorporated. The officers are: Elwood C. Watson, Pres.; Edwin H. Jonson, Vice-Pres. and Gen. Mgr., and Bruce Bedford, Secy. and Treas.

CHARLES T. TOPPING, representing the Chicago Concrete Machinery Co., in Pittsburg territory, has opened an office in the Bessemer Bldg., Pittsburg. He will handle Chicago mixers, Smith hand mixers, Symons crushers, Sterling wheel barrows, concrete cars, elevators, contractors' equipment and supplies.

THE FIRM OF A. B. SANDERS & CO. has recently been organized to deal in electric railway equipment. Mr. A. B. Sanders, the manager, was formerly connected with John B. Watson as manager of his electrical department. The offices of the new company will be located in the Witherspoon Bldg., Philadelphia.

MR. LAWRENCE SPILLAN has been placed in charge of the sales office of the Link-Belt Co., which has lately been moved from 84 to 131 State St., Boston. The change was made in order to better the faculties for supplying the increasing demand for Link-Blt elevating, conveying and power transmission machinery chains.

THE CENTURIAN CONCRETE STEEL CO., 1182 Broadway, New York, will do a general contracting business in fireproofing, reinforced concrete and foundations. Mr. J. Harmavice, the Secretary and Engineer, has,

furnished for the following concerns: Cornwall Ore Bank Co., Cornwall, Pa.; Knickerbocker Portland Cement Co., Hudson, N. Y.; Hydraulic Press Brick Co., Cleveland, Ohio; Prentiss Tool & Supply Co., New York City.

THE BUFFALO FORGE CO., Buffalo, N. Y., have recently closed a contract with the Anheuser-Busch Brewing Association, St. Louis, for an equipment of Buffalo down-draft forges with the necessary fans and motors. Among other recent orders for similar equipment are the Weyher Wagon Works, Wausau, Wis.; Bradley Polytechnic Institute, Peoria, Ill.; Shaw University, Raleigh, N. C.; Palmer & Singer Mfg. Co., New York City, and Fiat Automobile Co., Poughkeepsie, N. Y.

THE HAMPSON-FIELDING ENGINEERING CO., Denver, Colo., which has built up a successful business in general machinery, power plants, hydroelectric, irrigation, mining and milling work, has now associated with them Mr. Edward I. Clawiter, formerly Chief Engr. of the Atlantic, Gulf & Pacific Co., New York, N. Y., on their Philippine Islands work for six years, and will enlarge their operations to include structural steel and concrete work, tunnels, pipe lines and water-works.

THE SULLIVAN MACHINERY CO. has established a branch office at 35 Federal St., Boston, to permit more adequate service of its patrons in New England, eastern Canada and the maritime provinces. Mr. George E. Wolcott, for several years Manager of New England sales at the company's Claremont, New Hampshire, office, is in charge of the Boston headquarters. It is suggested that all correspondence be addressed in future to Boston, instead of to Claremont, in order to receive prompt attention.

THE ALLEN & GARCIA CO., McCormick Bldg., Chicago, has been organized to carry on business as consulting and contracting engineers. It will undertake the investigation of property and plants, coal properties, etc.; also the design and construction of engineering structures, bridges, foundations, coal mining plants, etc. The firm is composed of Mr. Andrews Allen, M. Am. Soc. C. E., (for 12 years contracting engineer for the Wisconsin Bridge & Iron Co.), and Mr. John A. Garcia (for several years engineer for different coal mining companies).

THE RICHARDSON-PHENIX CO., of Milwaukee, Wis., have recently opened a branch office in the Keystone Bldg., 324 Fourth Ave., Pittsburg, Pa. This office will be under the management of Mr. H. L. Laughlin, who has been with the Richardson-Phenix Co. for several years. Any question con-

LOCK AND DAM, CINCINNATI, OHIO.

	A	B
[illegible] lin. ft. cofferdam, 16-ft.	$20.00	$26.40
[illegible] lin. ft. cofferdam, 10-ft.	5.00	16.05
[illegible] cu. yds. common excavation	.65	.65
[illegible] cu. yds. rock excavation	5.00	3.60
[illegible] cu. yds. fill	.60	.45
[illegible] cu. yds. riprap	5.00	3.60
[illegible] ft. B. M. oak timber	100.00	85.00
[illegible] cu. yds. reinforced concrete	15.00	13.00
[illegible] cu. yds. concrete	8.00	6.85
[illegible] cu. yds. concrete paving	10.00	7.20
[illegible] lbs. structural steel	.065	.064
[illegible] lbs. reinforcing rods	.055	.035
[illegible] lbs. forgings	.07	.11
[illegible] lbs. bolts	.055	.069
[illegible] lbs. iron castings	.05	.065
[illegible] lbs. steel castings	.10	.14
1,170 lbs. bronze	1.00	.75
[illegible] lin. ft. pipe, 5-in.	2.00	1.85
[illegible] lin. ft. pipe, 4-in.	1.50	1.35
570 lin. ft. pipe, 3-in.	1.00	1.35
750 lin. ft. pipe, 2½-in.	.80	.75
800 lin. ft. pipe, 2-in.	.60	.65
850 lin. ft. tile drain	.80	.65
[illegible] lin. ft. drilling bolt holes	.75	.75
Totals	$633,526	$631,441

SEWERS.—Pocatello, Idaho.—The item prices of bids received by W. A. Samms, City Engr., March 9, for the construction of trunk sewers in accordance with plans and specifications on file with Hering & Fuller, Consult. Engrs., 170 Broadway, New York City, were: (A) Engineer's estimate; (B) R. M. BARDSON & CO., Butte, Mont. (awarded contract); (C) Moran Contracting Co., Ogden, Utah; (D) Gillis Construction Co., Salt Lake City, Utah; (E) F. W. Whittier, Twin Falls, Idaho; (F) Bannock Engineering Co., Pocatello; (G) Lindstrom & Oren, Butte, Mont.; (H) Peter O'Brien Construction Co., Denver, Colo.; (I) Montague & O'Reilly, Portland, Ore.; (J) W. W. Cook & Son, Junction City, Kan.; (K) Strange & Maguire, Salt Lake City, Utah; (L) Geo. Irving, Salt Lake City, Utah; (M) E. M. Eby, Wichita, Kan.; (N) James Kennedy Construction Co., Salt Lake City, Utah:

EXAMINATIONS.

SCIENTIFIC ASSISTANT IN WOOD UTILIZATION—Washington, D. C.—The U. S. Civil Service Commission announces an examination on May 10-11, to secure eligibles from which to make certification to fill two vacancies in the position of Scientific Assistant, (qualified in wood utilization), in the Forest Products Laboratory of the Forest Service, Department of Agriculture, at Madison, Wis., at $900 to $1,200 a year, and vacancies requiring similar qualifications as they may occur, unless it shall be decided in the interest of the service to fill the vacancies by reinstatement, transfer, or promotion. The position demands an elementary knowledge of the properties, structure, and uses of the different species of wood, including those of present importance of promising value in commerce. This examination will comprise a basis, consisting of obligatory subjects, and the major optional subject of wood utilization. No minor optional subjects will be given with this examination. Each applicant will be required to pass in the basis, or obligatory subjects, before any rating will be given in the major optional subject. English composition and report writing, 30 points; Arithmetic, 20 points; General educational training, 50 points. The subject of farm equipment will comprise the following elements: A thesis, preferably upon some phase of the subject, to be submitted with the application, 20 points; practical questions, 60 points; training and experience in the specific work covered by the subject, 20 points. Applicants must have reached their 20th birthday. Examination form 1312.

SEWERAGE SYSTEM, POCATELLO, IDAHO.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1,800 lin. ft. 12-in. vitrified pipe, cut 12 to 14 ft.	$2.16	$1.76	$1.667	$2.43	$2.31	$1.80	$2.55	$3.75	$3.20	$4.10	$3.25	$3.25	$3.85	$3.90
334 lin. ft. 15-in. vitrified pipe, cut 12 to 14 ft.	2.96	2.15	1.973	2.61	2.59	2.30	2.85	4.20	3.50	4.65	3.85	4.30	4.25	3.80
220 lin. ft. 20-in. vitrified pipe, cut 12 to 16 ft.	4.23	3.33	2.968	3.34	3.64	3.50	4.69	5.30	6.00	5.35	5.60	5.85	5.20	5.30
600 lin. ft. 20-in. vitrified pipe, cut 16 to 18 ft.	4.99	3.63	3.468	4.48	6.74	3.74	6.50	6.50	7.00	6.60	9.60	6.90	6.50	6.60
90 lin. ft. 24-in. vitrified pipe, cut 5 to 8 ft.	12.16	4.71	7.385	3.70	11.84	4.90	7.08	6.25	10.00	6.90	12.50	10.40	6.50	6.75
180 lin. ft. 24-in. vitrified pipe, cut 0 to 5 ft.	7.83	3.70	4.695	2.48	5.14	4.00	3.75	5.00	7.00	5.00	6.75	4.95	5.10	5.15
990 lin. ft. 24-in. vitrified pipe, cut 0 to 5 ft.	4.83	2.81	2.61	2.42	3.47	3.07	3.50	3.75	3.07	4.10	3.10	3.25	3.85	3.90
60 lin. ft. 24-in. vitrified pipe, cut 5 to 8 ft.	5.44	3.11	3.02	2.90	4.10	3.20	2.75	4.40	3.40	4.40	3.90	4.05	4.30	4.40
510 lin. ft. 24-in. vitrified pipe, cut 8 to 10 ft.	5.70	3.51	3.35	2.90	4.27	3.65	3.25	5.00	4.07	5.30	4.80	4.95	5.15	5.20
420 lin. ft. 24-in. vitrified pipe, cut 10 to 12 ft.	6.30	3.86	3.499	3.45	4.65	4.10	3.60	5.65	4.73	5.85	6.55	5.80	5.75	5.80
2,250 lin. ft. 24-in. vitrified pipe, cut 12 to 15 ft.	7.14	4.31	4.99	5.53	4.85	4.50	4.25	6.25	5.40	5.55	8.75	6.20	6.35	6.30
540 lin. ft. 24-in. vitrified pipe, cut 15 to 18 ft.	7.90	6.16	5.68	5.53	6.16	6.25	6.75	7.50	6.06	7.60	11.40	8.00	7.75	7.60
270 lin. ft. 24-in. vitrified pipe, cut 18 to 20 ft.	8.37	6.75	10.73	6.10	6.85	7.05	7.75	8.75	6.57	8.75	12.70	10.10	8.60	8.70
360 lin. ft. 24-in. vitrified pipe, cut 20 to 22 ft.	9.71	7.50	11.61	7.32	7.30	7.72	9.25	10.00	7.07	11.00	16.00	12.40	10.50	10.00
450 lin. ft. 24-in. vitrified pipe, cut 22 to 25 ft.	10.07	9.00	12.29	7.93	7.96	9.00	11.75	13.75	8.08	13.50	19.00	14.40	13.50	13.25
720 lin. ft. 30-in. vitrified pipe, cut less than 5 ft.	7.77	5.85	4.244	4.88	11.66	5.87	8.10	8.10	8.50	8.50	6.90	8.40	8.40	8.40
40 24-in. by 6-in. Y-specials, each	11.57	3.25	8.09	6.59	8.00	3.50	6.00	7.50	7.00	7.65	3.00	8.90	7.50	7.75
43 6-in., one-eighth bends, each	1.15	.75	.75	.30	.50	.83	.75	1.25	1.00	.60	.70	.60	.75	.75
149 lin. ft. 6-in. vitrified pipe risers	.411	.25	.75	.35	1.00	.27	2.00	1.25	1.00	1.00	.25	.20	.50	.75
509 lin. ft. 6-in. vitrified pipe house connections, cut less than 10 ft.	.87	1.00	1.1[illegible]	.86	1.00	1.50	2.00	1.90	1.00	1.00	1.60	1.25	1.00	1.00
1 flushing manhole and connections	480.00	275.00	120.00	305.00	197.00	300.00	300.00	500.00	250.00	550.00	250.00	321.00	5.50	5.40
370 manholes and appurtenances, per ft. of depth	12.00	6.00	7.29	5.37	6.00	6.15	10.00	8.75	6.50	8.90	5.48	7.50	9.00	8.75
60.5 tons c.-i. pipe	63.50	90.00	52.00	91.50	35.00	100.00	45.00	63.00	45.00	55.00	33.00	42.00	50.00	60.00
1 grit chamber and appurtenances	385.00	225.00	350.00	183.00	203.00	300.00	500.00	185.00	300.00	155.00	300.00	430.00	175.00	160.00
1 screen chamber and appurtenances	2,162.50	3,000.00	350.00	2,037.40	1,828.25	3,600.00	4,500.00	3,125.00	2,500.00	3,100.00	3,000.00	1,650.00	3,500.00	3,400.00
3,200 cu. yds. rock excavation	4.00	2.75	3.00	5.00	4.25	5.00	4.50	2.25	6.00	3.50	2.00	5.00	4.50	4.25
474 cu. yds. excavation in soil, clay and loose gravel	.83	2.00	.90	2.44	1.00	2.50	2.00	1.25	2.50	1.00	1.50	1.50	.80	.90
634 cu. yds. extra earth filling	1.50	1.00	.90	.61	1.00	1.10	1.00	1.25	1.00	1.00	1.75	1.25	.80	.95
cu. yds. broken stone or gravel filling	1.50	2.00	1.50	10.00	1.00	2.25	3.50	2.50	3.00	1.25	2.00	1.25	1.00	1.10
200 cu. yds. concrete	12.00	12.00	10.00	10.00	10.00	14.00	12.00	16.25	15.00	15.00	4.00	9.50	14.00	14.50
26 M. ft. B. M. lumber for sheeting	31.00	27.00	38.00	25.00	27.00	30.00	30.00	50.00	40.00	36.00	25.00	40.00	30.00	35.00
9 M. ft. B. M. lumber left in place	31.00	35.00	28.00	25.00	44.00	40.00	30.00	50.00	45.00	45.00	25.00	20.00	45.00	45.00
1,725 sq. yds. gravel street resurfaced	.50	.35	.90	.70	.75	.50	2.50	.60	.50	.85	.30	.30	.75	.75
c.-i. pipe discharge apparatus and appurtenances, lump sum	3,517.50	3,500.00	8,189.20	3,000.00	3,580.00	4,200.00	3,500.00	2,500.00	3,500.00	4,500.00	2,400.00	3,489.00	2,950.00	5,500.00
lin. ft. 4-in. tile drain	.16	.50	.10	.50	.10	.56	1.00	.50	.50	1.00	.16	.12	.30	.35
Totals	$92,494	$69,833	$75,089	$77,179	$80,599	$81,834	$88,000	$89,181	$90,397	$94,204	$94,275	$94,345	$95,444	$97,434

FOREIGN CONTRACTS.

(To insure prompt attention, letters on consular business should be addressed to The American Consul at ———, ———. Such letters are opened and attended to by whoever may be in charge of the office. If addressed to the consul, personally, letters are forwarded to him, unopened, should he be absent, and a delay thus intervenes. If, in the meantime, he should have gone out of office, the matter may wholly escape attention.)

FACTORY.—Austria.—A company is being organized to erect a cement factory in Siersza.

FIRE ENGINES.—South Africa.—Bids will be received by the Town Clerk, Johannesburg, until noon, April 21, for supplying two patrol motor fire engines.

CORRUGATED STEEL ROOFS.—Egypt.—Bids will be received until April 30 by the Financial Secretary, War Office, Cairo, for a supply of corrugated steel roofs.

+PAVING. — Argentine. — FELIX FRESONE, Buenos Aires, has received from the Government a contract to do $100,000 worth of paving about the docks of Buenos Aires.

BRIDGE.—Spain.—Bids will be received until June 17 by the Director of Public Works, Madrid, for the construction of a bridge across the Tagus River, on the road from Salamanca to Caceres.

INDUSTRIAL NOTES.

THE R. H. BEAUMONT CO. has removed their offices from 644 Drexel Bldg. to offices 1041 in the same building, in order to accommodate the increase in business.

THE ATLANTIC EQUIPMENT CO. will remove its Chicago office on April 8, from the Railway Exchange Bldg., to 907-912 McCormick Bldg., Michigan Boulevard and Van Buren St., Chicago.

THE AMERICAN LOCOMOTIVE CO. will remove its Chicago office on April 8 from the Railway Exchange Bldg., to 907-912 McCormick Bldg., Michigan Boulevard and Van Buren St., Chicago.

for many years, been connected in an engineering and executive capacity, with prominent contracting firms.

THE BLAW COLLAPSIBLE STEEL CENTERING CO. announces that its Eastern sales office will be moved May 1 from the Park Row Bldg. to the City Investing Bldg., 165 Broadway, New York City. The general offices are in the Westinghouse Bldg., Pittsburg, and the Western Sales office at 1008 Ashland Block, Chicago, Ill.

ALLAN D. CONOVER, for eight years member and four years president of the Wisconsin State Board of Control of Charitable and Penal Institutions, has resumed the practice of architecture and engineering, and will specialize in educational and public building, heat and power plants, ventilation and sanitation, at Madison, Wis.

JAMES G. SHAW has recently organized the Upper Hudson Stone Co., with offices at 26 Cortlandt St., New York, N. Y. Mr. Shaw was formerly connected with the Clinton Point Stone Co., and has the advantage of being well acquainted with the stone consuming trade in the Metropolitan district. Stone is obtained from Cedar Cliff on the west bank of the Hudson, between Newburg and Marlboro.

THE CYCLONE DRILL CO., Orrville, Ohio, report that orders for more than 25 complete outfits have been booked this year among the largest being seven electric traction blast hole drills for the Dolese & Shepard Co., Chicago. Other outfits are being

cerning the economical lubrication of any kind of machinery can be taken up with Mr. Laughlin and will have his personal attention. He is familiar with all systems of lubrications, and is willing to give advice on "everything for lubrication but the lubricants."

AMONG THE PROMINENT LINES represented by Harold L. Bond Co., as agents in New England and New York, through their stores in Boston and New York City, is the Marsh-Capron line of concrete mixers. This line of machinery has taken a prominent place in the concrete mixer field, owing to its design, construction and economy in operation. Included in the line are the noted rail-track non-tilting mixer and the tilting mixer, which is simplicity itself, owing to the few parts of which it is composed. These mixers will be carried in stock in Boston and New York in various sizes, and the manufacturers are prepared to fill orders for special equipment with promptness.

THE GENERAL ELECTRIC CO. recently shipped the Pennsylvania Water & Power Co., McCall's Ferry, Pa., a three-phase, 10,000-KW. 11,000-volt waterwheel-driven A. C. generator, designed to operate at a speed of 94 r.p.m. In order to form some conception of the large size of this unit, it may be interesting to know that its shipping weight was approximately 700,000 lbs., and 15 cars, many of exceptionally large capacity, were required for its transportation. It is 27 ft. in diameter and 10½ ft. high. A duplicate of this unit is now being shipped.

Three 7,500-KW. generators of the same type as the above, also of General Electric manufacture, are now in service in this plant.

THE BUFFALO FORGE CO., Buffalo, N. Y. has been awarded a contract by the Hazel-Atlas Co., of Wheeling, W. Va., for the installation of one of their natural gas heating systems. This system consists of a motor driver fan with air distributing ducts, and a natural gas heater with specially designed mixing chamber in which the products of combustion are consumed. A moderate temperature is maintained in the heating chamber, with a resulting increase in durability. This system, which uses the gas fuel direct without an intermediary boiler has proved very efficient, and a number of installations have been made in the natural gas section of Pennsylvania and W. Virginia, including some repeat orders.

CATALOGS ARE WANTED by the Wilmington Institute Free Library, Wilmington Del.; Arthur L. Bailey, Librarian. We are informed that the circulation of technical books used by workingmen of that city has increased nearly 200% in the last five years. The library work has been handicapped, however, by not having a collection of trade catalogs of the various manufacturing concerns throughout the country. The time has come when the library can take care of a collection of catalogs and it is the desire of the Librarian to have a complete file of all trade catalogs which are published in this country. A collection similar to the one in the Newark, N. J., Public Library, or the Pratt Institute Free Library, is desired.

THE JOHN W. RAPP CO., and the J. F. Blanchard Co., both manufacturers of hollow metal and metal covered doors, windows and trim, have combined under the name of the United States Metal Products Co., and have established general offices and show rooms at 203-205 West 40th St., New York. The officers are: John W. Rapp, Pres.; H. C. Randall, C. J. Hale and A. J. Connell, Vice-Presidents; E. B. Wire, Treas., and C. A. Leonardi, Secy. The factory of the John W. Rapp Co., College Point, L. I., covering seven acres, will be continued under the combined management, and the main offices on West 40th St., will be devoted to sales offices and show rooms. It is a four-story structure, 32 × 72 ft. The ground floor is to be devoted to storage purposes and will house the company's delivery motor ... The second floor will be used for ... purposes and for the executive ... The third floor will be devoted to the esti-mating and advertising departments, and the engineering and drafting departments will be located on the fourth ... The building is a fireproof structure and is equipped with a vacuum-cleaning apparatus.

The United States Metal Products Co. has plans under way for the erection of an addition to the Rapp plant at College Point, L. I. The plans include the erection of a shop, 250 × 600 ft., with saw-tooth roof, a dock, 75 × 600 ft., and an employees' bath-house, 50 × 60 ft.

(Continued on page 17[illegible])

LIST OF CONTRACTS PENDING

Plans and Specifications on File.

The following plans (P.) and Specifications (S.) are on file for reference only unless otherwise noted at the office of The Engineering News Publishing Co., 220 Broadway, New York.

Bids close.		Noted in issue of
4- 7	Pipe, etc., Atlanta, Ga. (S.)	3- 9
4-14	Sewer, Saskatoon, Sask. (P & S)	3-16
4-15*	Dam, etc., North Yakima, Wash. (S.)	3- 2
4-20*	Water system, Helena, Mont. (S.)	3-16
4-22	Dry kiln, Norfolk, Va. (S.)	3-23
4-29	Boilers, etc., Hawaii (S.)	4- 6
5- 6	Repairs to slips, Norfolk, Va. (S.)	4- 6
6- 3	Floating cranes, Hawaii (S.)	4- 6

Light, Heat and Power Plants.

Bids close.		Noted in issue of
4-10	Electric lighting system, Omaha, Neb.	3-23
4-11	Electric light system, New York.	4- 6
4-11	Combination gas and electric light fixtures, Utica, N. Y.	4- 6
4-11	Reconstruction electric light system, New York, N. Y.	4- 6
4-11	Extension electric system, Ft. Omaha (Omaha P. O.), Neb.	4- 6
4-12	Tile duct, Baltimore, Md.	4- 6
4-13	Miscellaneous electrical supplies, New York, N. Y.	4- 6
4-14	Transmission apparatus, Yonkers, N. Y.	4- 6
4-16	Cables, Washington, D. C.	4- 6
4-17	Engine and generators, Troy, Ala.	4- 6
4-19	Generators, etc., Australia (Foreign)	3- 2
4-20*	Power-house equipments and conduits, Albany, N. Y.	3-23
4-24	Boiler and conduit, Sawtelle, Cal.	4- 6
4-24	Conduit and boiler, Los Angeles, Cal.	4- 6
4-25	Conduit and wiring, Jefferson City, Mo.	4- 6
4-27	Electrical switching equipment, Winnipeg, Man.	4- 6
4-28	Franchise, Susanville, Cal.	4- 6
4-29	Boilers, etc, Hawaii (U. S. Poss.)	4- 6
5- 1	Lighting fixtures, Wash., D. C.	4- 6
5- 1	Electrical supplies, Benicia, Cal.	4- 6
5- 1	Machinery, Yonkers, N. Y.	4- 6
5- 1	Lighting standards, Winnipeg, Man.	3-23
5- 3*	Heating plant, Ft. Totten, N. Y.	4- 6

Bridges.

Bids close.		Noted in issue of
4- 7	Bridges, Owen Sound, Ont.	3-30
4- 7	Bridge, Pittsburg, Pa.	3-30
4- 8	Bridge, Mackay, Idaho	3-16
4- 8	Bridges, Vincennes, Ind.	3-30
4- 8	Bridge, Ft. Wayne, Ind.	4- 6
4- 8	Bridge, Joliet, Ill.	4- 8
4-10	Bridge repair, Kansas City, Kan.	4- 6
4-10	Culvert, Camden, N. J.	4- 6
4-10	Bridge, Topeka, Kan.	4- 6
4-11	Culvert, Clinton, Iowa	3-23
4-12	Bridge work, Xenia, Ohio	3-16
4-12	Bridge work, Newark, Ohio	3-30
4-12	Bridge, Pittsfield, Mass.	4- 6
4-14	Bridge, Portland, Ore.	4- 6
4-14	Bridge, Chambersburg, Pa.	3-30
4-14	Bridge, Decatur, Ind.	3-16
4-15	Bridge, Minnitonas, Man.	3- 2
4-15	Bridge, Swan River, Man.	3- 2
4-15*	Bridge work, Kenosha, Wis.	3-16
4-15	Bridge, Moscow, Idaho	3-30
4-17	Bridges, Las Vegas, N. Mex.	3-30
4-17*	Bridge, Paducah, Ky.	4- 6
6-17	Bridge, Spain (Foreign)	4- 6
4-18	Bridges, Lawrenceville, Ill.	4- 6
4-18	Bridge, Camden, Ark.	3-30
4-18*	Bridge, Easton, Pa.	3-30
4-20*	Bridge, Batavia, Ill.	3-30
4-24	Bridge, New Lexington, Ohio	4- 6
4-25	Bridges, East St. Louis, Ill.	3-30
4-26	Viaduct, San Francisco, Cal.	4- 6
4-27	Bridge, Mount Gilead, Ohio	4- 6

Buildings.

Bids close.		Noted in issue of
4- 6	Building, New York, N. Y.	4- 6
4- 6	Manual training school, Oshkosh, Wis.	4- 6
4- 6	McKinley school improv., Trenton, N. J.	4- 6
4- 7	School, Sarcoxie, Mo.	4- 6
4- 7	Court-house, Highmore, S. Dak.	3-30
4- 8	School, Norfolk, Va.	4- 6
4- 8	School, Norfolk, Va.	4- 6
4- 8	School, Decatur, Ind.	4- 6
4-10	Edifice, Preston, Ont.	4- 6
4-10	Public building, Fairville, N. B.	4- 6
4-10	Car barns and power-house, Moosejaw, Sask.	4- 6
4-10	Improvement to court-house, Talladega, Ala.	3-30
4-10	Improvement to post-office, Portsmouth, N. H.	3-30
4-10	Boiler shop, etc., Winnipeg, Man. (Mfg. Pl.)	3-30
4-10	Detention house, Norristown, Pa.	3-30
4-10	Post-office, Mt. Sterling, Ky.	3- 9
4-10*	U. S. post-office, Connellsville, Pa	3- 2
4-10	Public hall, Port Clinton, Ohio	3-23
4-11	Schools, Schafer, N. Dak.	3-23
4-11	Fraternity hall, Mt. Carmel, Ill.	4- 6
4-11	Hospital, Dickinson, N. Dak.	4- 6
4-12	Tubercular hospital, Winnipeg, Man.	4- 6
4-12	Hospital, Ashland, Ohio	4- 6
4-12	Building, Loogootee, Ind.	3-30
4-14	School, Decatur, Mich.	3-30
4-14	Post-office, Brazil, Ind.	3- 9
4-14*	School, Hazleton, Pa.	3- 9
4-14	Jail, Eureka City, Utah	4- 6
4-15	School, Wetonka, S. Dak.	4- 6
4-15	Plans, Goderich, Ont.	4- 6
4-15	Four high schools, Riverside, Cal.	4- 6
4-15	School, Columbus, Ohio	4- 6
4-15	Building, Waterbury, Conn.	3- 2
4-15	Plans, Havana, Cuba	10-20
4-16	U. S. post office approaches, Platteville, Wis.	3-16
4-17	U. S. post office, Ames, Iowa	3-16
4-17	School, Lawton, Okla.	3-30
4-17	School, Wayland, Iowa	3-30
4-17	School, New York, N. Y.	4- 6
4-18	Hospital, Washington, Iowa	3-30
4-18	Barge office, New York, N. Y.	3- 9
4-18	Concrete city hall, Pasco, Wash.	4- 6
4-20	Masonic temple, Delphi, Ind.	4- 6
4-20	U. S. post office, Lagrange, Ga.	3-16
4-21	U. S. post office, McKinney, Tex.	3-16
4-21	Addition to church, Wabash, Ind.	4- 6
4-21	School, Circleville, Kan.	4- 6
4-21	School, Edgeley, N. Dak.	4- 6
4-21	School, Windom, Minn.	4- 6
4-22	School, Jersey, Ind.	4- 6
4-24	Wardhouse, Vancouver, B. C.	4- 6
4-24	U. S. post office, Braddock, Pa.	3-16
4-25	U. S. post-office, Terrell, Tex.	3-30
4-25	School, Medford, Ore.	3-30
4-25	School, Suffolk, Va.	4- 6
4-25	School, Mott, N. Dak.	4- 6
4-26	School, Flasher, N. Dak.	4- 6
4-30	School, Summit, N. J.	3-30
5- 1	Plans, Vancouver, B. C. (Mfg. Pl.)	3-23
5- 1	School, Canonsburg, Pa.	4- 6
5- 3	City hall, Richland Center, Wis.	3-30
5- 4*	County court-house, Auburn, Ind.	4- 6
5- 9*	U. S. post-office, Faribault, Minn.	4- 6
5-11*	U. S. post-office, Hope, Ark.	4- 6
5-15	School, Pendleton, Ore.	4- 6

Water-Works.

Bids close.		Noted in issue of
4- 6	Water pipe, Boston, Mass.	4- 6
4- 7	Pumping sta. work, Buffalo, N.Y.	4- 6
4- 7	Water pipe, Chicago, Ill.	4- 6
4- 7	Water extensions, Seneca, Kan.	3-30
4- 7*	Diversion dam, etc., Chambersburg, Pa.	3-16
4- 8	Water meters, Edmonton, Alta.	3-23
4- 8*	Pumps, Sioux City, Iowa	3-23
4- 8	Water supply work, Wetaskiwin, Alta.	3-30
4- 8	Water-works, etc., Chappell, Neb.	4- 6
4-10	Reservoirs, Ontario, Cal.	4- 6
4-10	Water plant, Livermore, Cal.	4- 6
4-10	Pipe, etc., Ada, Okla.	4- 6
4-10	Pumps, etc., Souris, Man.	4- 6
4-10	Pumps, Cincinnati, Ohio	3-30
4-10	Water-works, Lewistown, Ill.	3-30
4-10	Water extensions, etc., Moose Jaw, Sask.	3- 9
4-10*	Water wheels, Cincinnati, Ohio.	3-23
4-11	Water pipe, Cicero, Ill.	4- 6
4-11	Water pipe, St. Joseph, Minn.	4- 6
4-12	Hydraulic turbines, Carson City, Nev.	4- 6
4-12	Standpipe, Tucson, Ariz.	3-23
4-12	Pumping sta. equip., etc., N. Y.	3-30
4-13	Pipe, hydrants, etc., Harriston, Ont.	4- 6
4-13	Meters, Winnipeg, Man.	4- 6
4-13	Valves, Winnipeg, Man.	4- 6
4-15	Water main, Newburg, Ohio	3-30
4-15	Storage dam, Wells, Nev.	2-23
4-15*	Dam, etc., North Yakima, Wash.	3- 2
4-15*	Water softening plant, Ft. McKinley, Me.	3- 2
4-17*	Pipe, Fulton, N. Y.	3-30
4-17	Equipment, Lufkin, Tex.	4- 6
4-17	Penstock, Carson City, Nev.	4- 6
4-18	Filtration plant, Niles, Ohio	4- 6
4-18	Chimney, Richland Center, Wis.	3-30
4-19	Pipe, Winnipeg, Man.	3-23
4-20*	Water system, Helena, Mont.	3-16
4-20	Water-works, Morehead, N. C.	3-30
4-20	Water-works impvt., Moberly, Mo.	4- 6
4-21*	Reservoir work, Warwick, N. Y.	4- 6
4-26*	Pump, etc., Baltimore, Md.	4- 6
5- 1*	W-Wks. material, Penticton, B. C.	- 6
5-15*	Water-works, Penticton, B. C.	4- 6
5-31	Pipe, Vancouver, B. C.	4- 6
6- 1*	Canal enlargement, Boise, Idaho.	3-30

Sewers.

Bids close.		Noted in issue of
4- 6	Sewers, Towson, Md.	4- 6
4- 7	Concrete sewer, Meridian, Miss.	4- 6
4- 7	Sewers, Albert Lea, Minn.	3-23
4- 8	Sewers, Muncie, Ind.	4- 6
4- 8	Sewers, Leamington, Ont.	4- 6
4-10	Sewers, Moose Jaw, Sask.	3- 9
4-10*	Sewer, Chambersburg, Pa.	3-16
4-10	Sekers, Girard, Ohio	3-30
4-11	Catch basin, drains, etc. Fort Douglas, Utah	3-30
4-11*	Sewers, South Orange, N. J.	3-23
4-11	Sewer, New Haven, Conn.	4- 6
4-11	Sewers, Delaware, Ohio	4- 6
4-13	Sewers, New York, N. Y.	4-6
4-14	Sewers, Bloomington, Ill.	4- 6
4-14	Sewer, Saskatoon, Sask.	3-16
4-15	Sewers, Cleveland, Ohio	3-16
4-15*	Sewer, Kenosha, Wis.	3-16
4-15	Sewers, Prince Albert, Sask.	3-30
4-15	Sewer, Easton, Md.	4- 6
4-15	Sewers, Buffalo, N. Y.	4- 6
4-15	Sewer, St. Joseph, Mo.	4- 6
4-15	Sewer, Mattoon, Ill.	4- 6
4-17	Sewers, Brainerd, Minn.	3-30
4-17	Sewers, Dayton, Ohio	4- 6
4-17*	Manhole collars and covers, Attleborough Mass.	4- 6
4-17*	Sewer pipe and special castings, Attleborough, Mass.	4- 6
4-18*	Sewers, East Aurora, N. Y.	3-30
4-19	Sewer screens, Baltimore, Md.	3-30
4-19	Sewer pipe, Chicago, Ill.	3-30
4-19	Iron sewer castings, Chicago, Ill.	3-30
4-20	Sewers, Central Point, Ore.	3-30
4-20	Sewer system, Amherst, Ohio	3-23
4-21	Sewers, Seattle, Wash.	3-30
4-21	Sewers, Allegan, Mich.	4- 6
4-24	Sewers, Yonkers, N. Y.	4- 6
4-24	Sewer, Berea, Ohio	4- 6
5- 1	Sewer, Fremont, Ohio	4- 6
5- 1	Sewers, Lusk, Wyo.	4- 6
5- 1	Sanitary sewers, Golden, Colo.	3-30
5- 1	Sewers, Xenia, Ohio	3-30
5- 2*	Sewers, Pensacola, Fla.	3-30
7- 3	Sewage disposal system, San Jose, Cal.	2-23

Streets and Roads.

Bids close.		Noted in issue of
4- 6	Paving, Ironton, Ohio	4- 6
4- 6	Improving alleys, Chicago, Ill.	4- 6
4- 6	Street repair, York, Pa.	4- 6
4- 7	Curbing, etc., Holyoke, Mass.	4- 6
4- 7	Grading, etc., Soho, N. J.	4- 6
4- 7	Roads, etc., Washington, D. C.	4- 6
4- 7	Sidewalks, Saskatoon, Sask.	4- 6
4- 7	Gravel roads, Brookville, Ind.	3-23
4- 7	Gravel road, Wabash, Ind.	3-23
4- 7	Walks, Fort Howard, Md.	3-16
4- 7	Road repairing, Cincinnati, Ohio	3-16
4- 8	Paving, Ingram, Pa.	4- 6
4- 8	Grading, Oshkosh, Wis.	4- 6
4-10*	Road construction, Madison Barracks, N. Y.	3-16
4-10	Paving, Lawton, Okla.	3-23
4-10	Paving and curbing, Cresco, Ia.	3-23
4-10	Sidewalks, Terrace Park, Ohio	3-30
4-10	Rd. construction, Cokeville, Tenn.	3-30
4-10	Road impvt., Youngstown, Ohio.	4- 6
4-10	Sidewalks, etc. Oklahoma City, Okla.	4- 6
4-10	Paving, San Luis Obispo, Cal.	4- 6
4-10	Paving, etc., Steubenville, Ohio	4- 6
4-10	Sidewalks, Boston, Mass.	4- 6
4-10	Paving, etc., Etna, Pa.	4- 6
4-10	Sidewalks, Hull, Que.	4- 6
4-10	Paving, Philadelphia, Pa.	4- 6
4-10	Grading, Kansas City, Kan.	4- 6
4-10	Grading, etc., Wabash, Ind.	4- 6
4-10	Pavements, Elyria, Ohio	4- 6
4-10	Road construction, Ft. Scott, Kan.	4- 6
4-10	Paving, Hartford, Conn.	4- 6
4-11	Road construction, Eureka, Cal.	4- 6
4-11	Paving, Delaware, Ohio	4- 6
4-11	Paving, Cicero, Ill.	4- 6
4-11	Paving, Oak Park, Ill.	4- 6
4-11	Paving, Houston, Tex.	4- 6
4-11	Paving, Columbia, S. C.	4- 6
4-11	Sidewalks, Boston, Mass.	4- 6
4-11	Repaving, Grand Forks, N. Dak.	4- 6
4-11	Road oil, New York, N. Y.	4- 6
4-11*	Roads, etc., Fort Douglas, Utah.	3-23
4-11*	Paving, Greenville, Tex.	3-30
4-12	Grading, etc., Bucyrus, Ohio	3-30
4-12	Paving, etc., New York	4- 6
4-12	Street construction, Mount Vernon, Wash.	4- 6
4-12	Sidewalks, Akron, Ohio	4- 6
4-12	Paving, etc., New York	4- 6
4-12	Paving, etc., Indianapolis, Ind.	4- 6
4-13	Pavement, Newark, N. J.	4- 6
4-13	Paving, Platteville, Wis.	4- 6
4-14	Grading, etc., Kathio, Minn.	4- 6
4-14	Paving, Columbus, Ohio	4- 6
4-14	Road, Coquille, Ore.	4- 6
4-14	Paving, East St. Louis, Ill.	4- 6
4-15	Road impvt., Marysville, Ohio	4- 6
4-15	Grading, etc., Cleveland, Ohio	3-23
4-15	Road construction, Swedesboro, N. J.	3-16
4-15	Sidewalk, etc., Long Beach, Cal.	3-30
4-15	Roads, Rushville, Ind.	3-30
4-17	Paving, Brampton, Ont.	3-30
4-17	Grading, etc., Portsmouth, Ohio.	3-23
4-17*	Paving, Johnstown, N. Y.	3-23
4-17	Paving, Beach City, Ohio	4- 6
4-17	Macadamizing, Washington, N. J.	4- 6
4-17	Street impvt., Beloit, Wis.	4- 6
4-18	Roads and walks, Galveston, Tex.	4- 6
4-18	Paving, Dublin, Ga.	3-23
4-19	Grading, etc., Bowling Green, O.	3-30
4-19*	Grading, etc., West New York, N. J.	4- 6
4-21	Road, Bowling Green, Ohio	4- 6
4-22*	Pavement repair, Wash., D. C.	4- 6
4-24	Paving, etc., Ashland, Ohio	4- 6
4-24	Road construction, Marion, Ohio.	4- 6
4-24	Macadam roads, Morristown, N. J.	4- 6
4-24*	Highway imp'ts, Albany, N. Y.	3-30
4-26*	Highway Imp'ts, Albany, N. Y.	3-30
4-28*	Highway Imp'ts, Albany, N. Y.	3-30
4-28	Road impvt., Cincinnati, Ohio	4- 6
4-28*	Paving, Jacksonville, Fla.	4- 6
4-29	Road impvt., Marysville, Ohio	4- 6
4-29	Paving, etc., Boston, Mass.	3-30
5- 4*	Paving, Seneca Falls, N. Y.	4- 6

Miscellaneous.

Bids close.		Noted in issue of
4- 7	Pipe, etc., Atlanta, Ga.	3- 9
4- 7	Stone, Seattle, Wash.	3-16
4- 7	Ditch, Benridge, Minn.	3-23
4- 7	Fire Apparatus, Jersey City, N. J.	3-30
4- 7	Piers, Duluth, Minn.	4- 6
4- 7	Tunnels, St. Louis, Mo.	4- 6
4- 8	Ditch, Monticello, Ind.	4- 6
4- 8	Ditch, Warren, Minn.	3-30
4- 9	Dredging pumps, Cleveland, O	4- 6
4-10	Wall, San Mateo, Cal.	4- 6
4-10	Fire apparatus, Ottawa, Ont	4- 6
4-10	Levee, Stockton, Cal.	3-30
4-10	Cross and switch ties, Panama (U. S. Poss)	3-23
4-10	Channel excavation, Buffalo, N. Y.	3- 9
4-10	Valve jacks, Wheeling, W. Va	3- 9
4-10*	Sluice gates, Detroit, Mich.	3- 9
4-10*	Dredging, Detroit, Mich.	3-16
4-11*	Rock excavation, Portland, Me.	3-16
4-11	Design, etc., for monument, Vincennes, Ind.	3-30
4-11	Road roller, Houston, Tex.	3-30
4-11	Dredging, Marshfield, Ore.	4- 6
4-11	Road oil, New York	4- 6
4-11	Repairs to scow, New York	4- 6
4-11	Bathing plant, etc., Asbury Park, N. J.	4- 6
4-11	Castings, pipe, etc., Quebec, Ont	4- 6
4-11*	Steam shovels, locomotives, etc. Toronto, Ont.	4- 6
4-11	Ditch, Amboy, Ill.	4- 6
4-11	Iron stairs, wall, New York	4- 6
4-12	Revenue cutters, Wash., D. C.	4- 6
4-12	Jetties, Ventnor City, N. J.	4- 6
4-12	Ditches, Tampico, Ill.	4- 6
4-13	Manhole heads and covers, etc. New York	4- 6
4-13	Lumber, New York	4- 6
4-13	Dredging plant, Cincinnati, Ohio.	3-23
4-13	Dredging, Wheeling, W. Va.	3-23
4-14*	Structural metal, Vicksburg, Miss.	3-23
4-14*	Granite masonry, Wash., D. C.	3-30
4-14*	Asphalt cement, Kansas City, Mo.	3-30
4-14	Removing boulders, Boston, Mass.	4- 6
4-14	Stone jetty, Boston, Mass.	4- 6
4-14	Jetty, Boston, Mass.	4- 6
4-15	Dredging, Statesville, N. C.	4- 6
4-15	Improving locks, Cornwall, Ont.	4- 6
4-15	Drainage, Marshall, Wis.	3-30
4-15	Powder magazine, Ft. Sill, Okla.	3-30
4-15*	Dredging, Chicago, Ill.	3-30
4-15	Iron trucks, safes, etc., Egypt (Foreign)	3- 9
4-15*	Dredging, Duluth, Minn.	3-23
4-16	Cable, Washington, D. C.	3-30
4-17	Tug boat, Washington, D. C.	3-30
4-17	Ditch, Canton, Ohio	4- 6
4-17	Elevators, Columbus, Ohio	4- 6
4-18*	Dredging, Bayonne, N. J.	4- 6
4-18	St. sprinklers, etc. (Garbage), Pasco, Wash.	4- 6
4-19	Cement, limestone, etc., Chicago, Ill.	3-30
4-19*	Levee, East St. Louis, Ill.	3-23
4-20*	Superstructure of breakwater, Boston, Mass.	3-23
4-20*	Dredging, Duluth, Minn.	3-23
4-20	Hospital, etc., (plans and designs-Argentine Republic (Foreign)	1-12
4-20*	Dam work, Cincinnati, Ohio	3-23
4-20	Fire apparatus, Vancouver, B. C.	4- 6
4-21	Fire engines, South Africa (Foreign)	4- 6
4-21	Iron fence, Washington, D. C.	4- 6
4-22	Dry kiln, Norfolk, Va.	3-23
4-24	Levee embankment, Cotton Plant, Ark.	3-30
4-24	Jetty, Baltimore, Md.	3-30
4-24*	Dredging mchy., Oswego, N. Y.	3-30
4-24*	Dredging, Detroit, Mich.	3-30
4-24	Refuse disposal, Boston, Mass. (garbage)	4- 6
4-25*	Special castings, Wash., D. C.	4- 6
4-25	Ferryboat, Boston, Mass.	4- 6
4-26	Freight lift, etc., Elizabeth, N.J.	4- 6
4-26	Towboat hire, Cincinnati, Ohio	4- 6
4-26	Ditch, Fort Dodge, Iowa	3-23
4-27	Pier work, Grand Rapids, Mich.	4- 6
4-28*	Removal of wreck, Boston, Mass.	3-30
4-29	Dredging, Boston, Mass.	4- 6
4-30	Corrugated steel roofs, Egypt, (Foreign)	4- 6
5- 1	Iron, etc., Benicia, Cal.	4- 6
5- 3*	Dredging, Fort Totten, N. Y.	4- 6
5- 4	Dredging, New York	3-30
5- 6	Quarantine sta., Galveston, Tex.	3-30
5- 6	Dry kiln, Bremerton, Wash.	4- 6
5- 6	Repairs to ships, Norfolk, Va.	4- 6
5-27*	Miter gate-moving machines, Panama (U. S. Poss.)	4- 6
6- 3	Floating cranes, Washington, D.C.	4- 6
7-22	Port work, Chile (Foreign)	4- 6
8- 1	Designs, etc., for monument, Cincinnati, Ohio	2- 9

Examinations.

Examination date.		Noted in issue of
4-12	Junior engineer (Mining), Washington, D. C.	3-23
4-12	Junior Engineer (Mechanical), Washington, D. C.	3-23
4-12	Cadet Engineer, Washington, D. C	3-16
4-15	Magnetic Observer, Washington, D. C.	3-16
4-19	Aid In Chemistry, Washington, D. C.	3-16
4-19	Junior Chemist, Washington, D. C	3-16
4-19	Statistician In Forest Products, Washington, D. C.	3-16
4-19	Laboratory Aid, Washington, D. C	3-16
4-22	Assistant Director, Wash., D. C.	3-23
5- 3	Junior chemist, Wash., D. C.	3-23
5-10	Scientific Assistant in Wood Utilization, Washington, D. C.	4- 6

CURRENT PRICES OF ENGINEERING MATERIALS

Supplement to ENGINEERING NEWS, appearing in the First Issue of Each Month. New York, April 6, 1911.

PRICE CHANGES AND THE BUSINESS OUTLOOK.

The fluctuations in prices of many commodities were wider during the month of March than at any time in a year. This betokens activity, but the increased volume of business has not been commensurate with the difference in prices recorded.

The price of lumber has advanced slightly, and the demand, although showing improvement compared with previous months, is not as great as a year ago. Sewer pipe is higher in price, and there is an excellent demand for hollow wall tile at unchanged quotations. The long continued depression in the leather trade has resulted in lower prices for leather belting. Notable advances have been recorded in the price of turpentine, it now being quoted 60% higher than a year ago, and double that of two years ago. The prevailing price is now the highest since the resumption of specie payments. Copper wire was sold early in the month at a lower price than at any time in the last six years, and, as the result of large buying by consumers, prices nave recently advanced about 1 ct. per lb. Copper metal, too, is lower than at any time in a decade, but with one exception. Pig tin, which is being used more widely in the arts, has advanced nearly to the record breaking figures reached in the boom of 1906.

The supply of labor exceeds the demand, and, although no change has oeen made in the wage scale, laborers and workmen in factories are rendering more work for a dollar than a year ago. The larger employers of labor are weeding out their inefficient help, and the railways particularly nave curtailed their operating forces in many directions. The plea advanced by laborers last year that the high cost of living necessitated increased compensation is no longer tenable; wheat in the primary markets is lower than at any time since 1907, and the same may be said of corn. Pork is also cheaper than since 1909 with prospects for further decline by the end of the year. Other food stuffs have declined much in the last year, although in many cases this price reduction is not yet realized by consumers.

There is now an open market for cement in the East, although the majority of sellers in the metropolitan district are quoting approximately the same price. Tne consumption is large, even greater than the record-breaking figures of last year. Coupled with the increased demand for cement is an excellent inquiry for all kinds of concrete reinforcing. The iron markets are exceptionally quiet, duller than any other market in which engineers are interested. This is due to the rigid curtailment of expenditures by the railways and the absence of new railway construction.

Active competition for all kinds of construction work is the rule in all centers. There is an unusually large amount of construction work going on in the smaller municipalities, but most of this is divided into small contracts. Building work is less active than a year ago.

Railway building in Canada is going on apace. The Grand Trunk Pacific has awarded contract for about 800 miles of road, involving an expenditure of $17,000,000. In this country, new construction of railways is dormant, but many roads are making extensive improvements in the way of passing tracks and second tracks. These expenditures, for the most part, are being paid for out of earnings.

LABOR.

Conditions are unsatisfactory from the workers' point of view. There are more men seeking work than in the Spring of 1910 or 1909. This applies to practically all classes of labor. The immigrant labor has little or no work offering, and in fact on the Ashokan reservoir construction camps are well peopled with men who have stayed in camp all Winter to be on hand for work early in the Spring. Similar conditions prevail on the Barge Canal, but not to the same extent. Skilled labor is in less requisition, and it is easy to obtain skilled workmen for almost any industry at short notice. An effort is being made by employers to increase the efficiency of the workmen and in some cases all the employees of certain departments have been discharged in order to obtain more efficient workers. Practically all the railways in the country are reducing their working hours more commensurate with the volume of traffic now being offered. It is evident that there will be a large amount of new construction this year, but it is being carried on quietly and much of it will not be done unless the supply of labor is plentiful and can be had at concessions from the rates ruling last year.

Rough laborers are being paid $1.50 per day and at this figure the supply exceeds the demand. Foreign help for indoor or factory work can be had at $1.25 a day.

CEMENT, LIME AND BRICK.

PORTLAND CEMENT.—The Eastern market is now an open one, and prices are no longer subject to any agreement by manufacturers. Business is active, and there is probably more cement now being sold and shipped than at any corresponding time in previous years. The leading interest is shipping more cement to Panama, and practically all of the other cement manufacturers in the Lehigh Valley District are as busy as they ever were. Prices are almost demoralized and are very unsatisfactory. An attempt was made about the middle of the month to advance quotations 5 cts. per bbl., but this had no effect and cement is selling at 75 cts. to 80 cts. per bbl. in bulk at mill. In the West it looks as though there would be a shortage later in the year. Practically all of the mills have as much business as they can comfortably take care of, and for cement their selling prices range from 95 cts. to $1.05 in bulk at the mill. One interest, however, is selling at about 90 cts. The low prices are not stimulating consumption, but it is evident that the greatly increased volume of business postponed the closing of some mills which were financially embarrassed.

Quotations in New York are $1.43 per bbl., with an allowance of 40 cts. for the bags returned. In Boston the quotation is $1.52; Buffalo, $1.50; Philadelphia, $1.40. On the Pacific Coast prices range from $2 to $2.40 per bbl. The Eastern quotations represent a price of 80 to 90 cts. per bbl. in bulk at the mill.

No change has been made in the price of imported cement, $2.42 being quoted for Alsen's and $2.43 for Dyckerhoff's.

NATURAL CEMENT.—Business is very quiet and quotations are absolutely without change at 80 cts. per bbl. in New York and $1.05 in Boston.

BRICK.—The volume of business has materially increased, and the sales are now larger than the arrivals. There has been a conference among some of the brick manufacturers operating along the Hudson River for the purpose of seeing what could be done to obtain a better market. It has been admitted that there is no profit in making brick to sell in New York at $5.12½ to $5.50, which is the present quotation for Hudson River common.' It is probable that not over half the manufacturers will run their kilns to capacity this year, unless there should be a material betterment in prices. Raritan River brick are now quoted at $5.50 in New York and $6.75 in yard at Newark.

White enameled brick are held at the unchanged price of $60 per thousand for the American size (8¾ × 2¼-in. enameled surface by 4⅛-in. bed), and $70 to $75 for the English size (9 × 3-in. enameled surface by 4½-in, bed). These prices are f. o. b. Perth Amboy.

PLASTER BLOCKS.—For large lots, prices are as follows:

	Weight, lbs. per sq. ft.	Price, cts. per sq. ft.
2-in.	7	6
3-in.	8½	6½
4-in.	11	7¼

These blocks are made 32-in. long by 13½-in. wide, containing 3 sq. ft. of surface. The 2-in. blocks are solid, but the others are hollow.

Plaster boards, ⅝-in. thick, are 16 cts. per sq. yd.

LIME.—The following prices are for lots of 500 bbls., delivered in New York City; State common, per bbl., 75 cts.; Rockland-Rockport common, 92 cts.; Rockland-Rockport special, 300 lbs., $1.37; finished, 300 lbs., $1.47; finishing 200 lbs., $1.02, and 350 lbs., $1.62; New Milford, $1.30.

STONE.

BLUE STONE.—The demand is very good. Some sales of 3-in. stone have been made at 17 cts. delivered in New York, but this figure is no longer quoted. There appears to be little incentive to anticipate requirements as it is felt that there will be no change in price, at least, for several weeks.

For delivery, either alongside of dock f. o. b. cars, New York, prices are as follows: Flagging, 6 cts. per sq. ft. per in. of thickness; flagging, 2½ to 3-in. thick, that will pass New York City specifications, 18 to 19 cts. per sq. ft. Sewer bottoms, 5 ft. sq. and 3-in. thick, are sold at 25 cts. per sq. ft. Curbing, 5 × 16-in., is 40 cts., and 5 × 24-in., by 5-in. thick, is 60 cts., and 6-in. thick is 65 to 70 cts. per lin. ft., 5 × 20-in. by 5-in. thick is 50 cts.

Promiscuous shapes of building and foundation stone sell at 70 to 75 cts. per cu. ft.

GRANITE.—Prices continue without change at 40 to 45 cts. per cu. ft. for promiscuous shapes or run of quarry.

Pink Milford granite is in fair demand and unchanged in price at $1 per cu. ft. for promiscuous shapes.

LIMESTONE.—Prices are unchanged at 85 cts. per cu. ft., delivered alongside of dock, New York. Dressed stone is quoted at $1.25 to $1.50 per cu. ft.

Sandstone in the rough is 80 cts. to $1 per cu. ft.

INTERIOR STONE.—Slate flooring, 1-in. thick, can be had at 20 cts. per sq. ft. for the common or ribbon variety. Clear black sells at 35 to 40 cts., and the same price is asked for Vermont. A combination of slate and marble flooring is 30 cts. per sq. ft.

Marble floor, finished ready to lay, of Vermont marble, is 50 to 70 cts. per sq. ft.; Italian marble, 70 to 90 cts. Tennessee marble can be had at 65 cts. Ordinary stair work, such as slate steps, are quoted at 24 cts. per sq. ft.

CRUSHED STONE, SAND AND GRAVEL.

CRUSHED STONE.—The season is rather backward, but more activity is anticipated later in the year. Numerous inquiries are in the market, but the capacity of the stone crushing plants tributary to New York City is in excess of the demand. Prices continue without change as follows:

For 1½-in. stone, 90 cts. to $1.00 a yd. is quoted; ¾-in. stone, 95 cts. to $1.10, and screenings are also sold at 95 cts. to $1.10. These prices are for full cargo lots of 500 cu. yds. delivered alongside of dock, New York City.

In Boston, the following prices are quoted, f. o. b. cars at point of shipment, per net ton; 2½-in., 65 cts.; 1½-in., 75 cts.; ¾-in., 90 cts.

SAND.—The market is quiet and there is much sand afloat which can be delivered on short notice. For immediate delivery prices are unchanged at 25 cts. per cu. yd. One company at least is willing to sell sand for any delivery up to July 1 at this figure. On contracts running throughout the year a somewhat higher range of price prevails. Delivered in Newark, sand is selling at 36 to 40 cts.

White quartz sand is 60 cts. per cu. yd., and white quartz grit, 75 cts. per cu. yd. All of these prices are for delivery alongside of dock, New York, and for full cargo lots of 500 yds.

In Boston, sand sells at 35 cts. per cu. yd., to which is added the freight of about 50 cts.

GRAVEL.—The market continues steady, but the demand is not at all active.

Prices are unchanged at 75 to 85 cts. per cu. yd. delivered alongside of dock. These prices are for cargo lots of 500 cu. yds.

White quartz roofing gravel is $1.25 to $1.35 per cu. yd.

IRON AND STEEL.

PIG IRON.—The volume of business booked during March was not as large as during February, but shipments increased. The price movement was within narrow limits. It is is evident that prices are down to a basis where manufacturers will blow out their stacks rather than reduce them much further, unless there should be a change in the operating costs. The furnaces in blast have enough business to keep them running during the second quarter, but for third quarter delivery they are expected to make contracts on the same basis as those ruling for spot iron. For delivery during the last quarter of the year, slightly higher prices are named, especially if the contract be a large one. Some of the leading furnace interests do not care to quote for delivery during this period, and there is no effort being made to push sales. The American Locomotive Co. is in the market for a fairly large tonnage of foundry iron. Most of the sales made, however, have been for comparatively small lots. There has been a slightly better feeling in steel-making irons, and the business booked has been larger.

For lots of 100 gross tons and over f. o. b. points named, quotations are as follows: Cincinnati Southern foundry No. 1, $14.75; Southern foundry No. 2, $14.25; Southern foundry No. 4, $13.50. In Philadelphia, Eastern Pennsylvania No. 2X foundry is $15.50 to $16; Eastern Pennsylvania No. 2 plain foundry is $15.25 to $15.50. In Chicago, Northern foundry No. 2 is $15.50 to $16; Southern foundry No. 2 is $15.35 to $15.85. In Pittsburg, Bessemer iron is $15.90, and basic $14.15 to $14.90. These quotations include the 90-ct. freight rate from the valley to Pittsburg. In New York, Northern foundry No. 2X is $15.50 to $15.75; Southern foundry No. 2, $15.25 to $15.50. In Birmingham, Southern foundry No. 2 can be had at $11 for all deliveries prior to July 1, and at $11.25 to $11.50 for delivery during the remainder of the year.

STEEL RAILS.—Export orders have been fair, and there is no doubt that the domestic orders are larger than has been generally believed. Railways are buying more for renewals and replacements than for new construction, but all of this buying is being done quietly. Light rails are in especially good demand, and the tonnage disposed of has been large.

All new rails are now quoted in cents per lb., the quotations being as follows for lots of 500 tons and over: Standard sections, 50 to 100-lbs., per yard, 1.25 cts. per lb.; 40 to 45-lbs., 1.16 cts.; 30 to 35-lbs., 1.20 cts.; 16, 20 and 25 lbs., 1.21 cts.; and 12-lb. rails, 1.25 cts. Relaying rails are 50 cts. a ton cheaper in New York, at $20 to $21 per gross ton. In Chicago, standard sections, subject to inspection, are unchanged from last month, at $23 to $24 per gross ton.

TRACK SUPPLIES.—Two Southern railroads are in the market for spikes, and their requirements aggregate 8,000 kegs. All kinds of light track supplies are in active demand. Some of the Western roads have been heavy buyers. Another advance of 5 cents per pound was made April 1, the revised quotation for railway spikes being $1.60. The extras are unchanged, and are repeated from last month, as follows:

Railroad Spikes.		Cents.
4½, 5 and 5½ × 9/16		1.60
3, 3½, 4, 4½ and 5 × ½	Extra	.10
3½, 4 and 4½ × 7/16	Extra	.20
3, 3½, 4 and 4½ × ⅜	Extra	.30
2½ × ⅜	Extra	.40
2½, 3 and 3½ × 5/16	Extra	.60
2 × 5/16	Extra	.80

Boat Spikes.		
¾ in. square, 12 to 24 in. long	Extra	.15
⅝ in. square, 8 to 16 in. long	Extra	.15
½ in. square, 6 to 16 in. long	Extra	.15
7/16 in. square, 6 to 12 in. long	Extra	.20
⅜ in. square, 4 to 12 in. long	Extra	.30
5/16 in. square, 4 to 8 in. long	Extra	.45
¼ in. square, 4 to 8 in. long	Etxar	.75
¼ in. square, 3 to 3½ in. long	Extra	1.00

Track bolts with square nuts are 2.15 to 2.25 cts. per pound base in carload lots, Chicago.

STRUCTURAL SHAPES.—Building is more active, and some fair business has been taken in plates and angles. The Pere Marquette has contracted for about 800 tons of bridge material, the American Bridge Co. has been awarded the contract for a bridge at Bethlehem, Pa., by the Lehigh Valley, aggregating 1,600 tons. The bridge to connect the New Haven with the Pennsylvania by the way of Hell Gate and Randall's Island is coming to the front again. The steel requirements of this will be approximately 60,000. The newly organized St. Lawrence Bridge Co., in which Canadian bridge companies are interested, has been awarded the contract, according to the "Iron Age," for the Quebec bridge, and 60,000 tons of steel will be furnished by the Carnegie Steel Co.

Prices are without change. The following quotations are named in cts. per lb., f. o. b. Pittsburg: I-beams and channels, 3 to 15-in., 1.40 to 1.45 cts.; over 15-in., 1.55 cts.; H-beams, over 8-in., 1.65 cts.; angles, 3 to 6-in., inclusive, 1.50 cts.; angles over 6-in., 1.55 cts.; zees, 3-in. and over, 1.50 cts.; angles, channels and zees under 3 in., 1.45 base and full extras; deck beams and bulb angles, 1.75 cts.; hand rail tees, checkered and corrugated plates, 2.75 cts.

Chicago store prices in cents per lb. are as follows: Angles, 3 to 6-in., 1.80 to 1.90 cts.; over 6-in., 1.90 to 2 cts.; I-beams and channels, 1.80 to 1.90 cts. In San Francisco, prices from store continue without change at 2.70 cts. base.

CAST-IRON PIPE.—No large lettings have been made during the month. Private water companies and small municipalities have been in the market for lots from 200 to 500 tons and 3,800 tons for Pittsfield was awarded to Chas. Millar & Sons Co.

Prices in Birmingham are higher, but in New York they are slightly easier than a month ago, quotations being as follows:

Birmingham, Ala., 4 to 6-in., $23; 8 to 12-in., $22; over 12-in., $21.

Chicago, 4-in., $25.50; 6 to 12-in., $24.50; 16-in., $24.

New York, 6-in., $21 to $22.

Gas pipe is held $1 per ton higher in all markets.

OLD MATERIALS.—The scrap market is not as active as it was a month ago, but prices are holding steady. The railways have not sold all the material that they intended to and many of the scrap merchants are disposed to hold the material they have rather than sell at present prices, which they believe a sacrifice.

Prices in New York per gross ton are as follows: Heavy-melting steel scrap, $11 to $11.50; No. 1 yard wrought, $11.50 to $13; No. 1 railroad wrought, $13.50 to $14; pipes and flues, $11 to $11.50; cast borings, $6.50 to $7; machinery cast, broken up, $12 to $12.50; stove plate, $9 to $9.50. This latter quotation represents a decline of $1 per ton compared with last month.

In Chicago the buyer appeared to be dictating prices and the market is weak. Quotations are as follows per gross ton: Rerolling rails, $13.25 to $13.75; heavy-melting steel scrap, $11.50 to $12; shovelling steel, $11.25 to $11.75. For such materials as are sold by the net ton, quotations are as follows: Miscellaneous railroad wrought, $10.50 to $12; machine shop turnings, $6.50 to $7; No. 1 cast scrap, $11.75 to $12.25; pipes and flues, $8.50 to $9; railroad malleable, $11.50 to $12; agricultural malleable, $10 to $10.50.

The Pittsburg market is more or less at a standstill. Consumers have what material they need for present requirements and

those who have scrap are unwilling to sell at the prevailing figures. Quotations per gross ton are as follows: Re-rolling rails, $15 to $15.25; No. 1 foundry cast, $14 to $14.25; No. 2 foundry cast, $13.25 to $13.50; old grate bars, $11; car wheels, $13.50 to $13.75; bundled steel scrap, $10.50 to $10.75.

PLATES.—Plate rollers are only operating 50 to 60% of capacity. Car orders are few and there is very little boat work in prospect.

Prices are unchanged at 1.40 cts. base for wide plates. Plates ¾-in. thick, 6¾ to 100 ins. wide, 1.40 to 1.45 cts.; ¼ to 3/16-in. thick, 1.50 to 1.55 cts.; 3/16-in. and thinner, including No. 8 gage, 1.55 to 1.65 cts.; Nos. 8, 9 and 10 gage, 1.70 to 1.75 cts. All these prices are per lb. f. o. b. mill.

In Chicago store prices are 1.85 to 1.95 cts.

RIVETS.—The price of rivets has been reaffirmed at 1.90 cts. base. The demand is only moderate.

Structural rivets, ¾-in. and larger, 1.90 cts. base; cone head boiler rivets, ¾-in. and larger, 2 cts., base; ⅝-in. and 11/16-in. take an advance of 15 cts., and ½-in. and 9/16-in. take an advance of 50 cts. Lengths shorter than 1-in. also take an advance of 50 cts. Terms are 30 days, net cash, f. o. b. mill.

ROOFING, CORRUGATED.—The demand is practically the same as a month ago, being about 70% of the capacity of the mills.

Prices likewise are unchanged and per 100 sq. ft. of roof surface are as follows: Carloads, Pittsburg, No. 28 painted, $1.55; No. 28 galvanized, $2.75. From store New York, No. 24 painted, $3.60; No. 24 galvanized, $4.50; No. 26 painted, $2.75; No. 26 galvanized, $3.75; No. 28, painted, $2.40; No. 28 galvanized, $3.50.

PILING, SHEET STEEL.—Prices are without change at 1.60 cts. per lb. f. o. b. Pittsburg.

STEEL CASTINGS.—Prices continue without change. Open hearth steel castings, weighing from 100 to 500 lbs. are 3¼ to 5 cts. per lb. Crucible castings, weighing from 100 to 500 lbs., are 7½ to 9 cts. per lb.

CASTINGS, GREY IRON.—The volume of business continues below normal. Building castings are to be had 1.62½ to 2 cts. per lb. depending on the size of the order and shape of the casting. Stair work is 2 to 2.50 cts. per lb. Rough castings such as foundation pieces, sewer work and similar heavy pieces are 1.50 to 1.75 cts. per lb.

FREIGHT RATES.—The freight rates, on finished steel products, from the Pittsburg district, including plates, structural shapes, merchant steel and iron bars, pipe, fittings, plain and galvanized wire, nails, rivets, spikes and bolts (in kegs), black sheets (except planished), chain, etc., are as follows, in cts. per lbs.: Albany, 16; Buffalo, 11; Boston, 18; Baltimore, 14½; Canandaigua, 13½; Cleveland, 10; Columbus, 12; Cincinnati, 15; Chicago, 18; Denver, Colo., 85½; Harrisburg, 14½; Louisville, 18; New York, 16; Norfolk, 20; Philadelphia, 15; Rochester, 11½; Richmond, 20; Scranton, 15; St. Louis, 23; Washington, 14½.

WIRE ROPE.—Prices are unchanged. The discount to the larger trade is 42½ and 5% from list for galvanized, and 50 and 5% from list for bright. The net prices of bright wire rope are as follows:

Diameter, ins.	Price per foot — Cast steel.	Crucible steel.	Plow steel.
2¾	$1.05	$1.24	$1.46
2½	.85	1.05	1.22
2	.57	.65	.76
1¾	.44	.54	.64
1½	.32	.39	.45
1¼	.23	.28	.32
1	.15	.18	.21
¾	.10	.11	.13
⅝	.07	.09	.10
½	.06	.07	.07

SHEETS.—The mills of the leading interest are operating about the same capacity as last month, namely 66%. The sheet trade is not looking for any great activity at least for the next few months.

The following quotations are named: f. o. b. mill in the Pittsburg district.

	Cts. per lb. — Black.	Galvanized.
Nos. 10 and 11	1.85	2.20
Nos. 12, 13 and 14	1.90	2.30
Nos. 15, 16 and 17	1.95	2.45
Nos. 18, 19, 20 and 21	2.00	2.60
No. 22	2.05	2.60
Nos. 23 and 24	2.05	2.70
Nos. 25 and 26	2.15	2.90
No. 27	2.20	3.05
No. 28	2.20	3.20
No. 29	2.25	3.30
No. 30	2.25	3.50

Store prices Chicago are as follows:

	Cts. per lb. — Black.	Galvanized.
No. 10	2.40	2.95
No. 12	2.40	
No. 14	2.45	
No. 16	2.55	3.05
Nos. 18 to 22	2.70	3.20
No. 24	2.75	3.30
No. 26	2.85	3.50
No. 27	2.95	3.65
No. 28	3.15	3.80
No. 30	3.35	4.25

TIN PLATE.—As usual, tin plate manufacturers have more business than any other line of finished iron and steel. The American Sheet & Tin Plate Co. is now operating about 90% of capacity.

Prices are unchanged from a month ago: Terne plates or tin-plates used for roofing purposes are sold by the box of 112 sheets. Store prices in New York are revised as follows: $8.70 per box for 20 × 28-in. I C plates with an 8-lb. coating; plates of the same size with a 15-lb. coating are $10.60; 20-lb. coatings, $13.20, and 40-lb. coating, $16.70.

MERCHANT PIPE.—Pipe mills are operating to about 65% of capacity. A Pacific Coast inquiry in the market is for 68 miles of 8 to 10-in. pipe and a Canadian mill has an order for 10 miles of 6-in. and 3 miles of 6 to 8-in. for delivery in that country. Discounts are unchanged as follows:

	Black.	Galvanized.
¾ to 1½-in. Butt weld	79	69
2-in. Lap weld	76	66
2½ to 4-in. Lap weld	78	66
4½ to 6-in. Lap weld	77	67
7 to 12-in.	75	59

At these discounts the net prices of pipe per ft. are as follows:

	Steel Pipe in Cts. per ft. f. o. b. Mill — Black.	Galv.
¾-inch	2.43	3.58
1 -inch	3.47	5.12
1¼-inch	4.74	7.00
1½-inch	5.69	8.35
2 -inch	8.65	12.20
2½-inch	12.70	19.80
3 -inch	16.60	25.60
4 -inch	23.70	36.70
5 -inch	33.40	48.00
6 -inch	43.20	62.00
7 -inch	54.00	78.00
8 -inch	65.00	93.00
9 -inch	78.00	112.00
10 -inch	92.00	132.00
11 -inch	104.00	149.00
12 -inch	114.00	162.00

BARS AND MERCHANT SHAPES.—Quotations from New York store are unchanged from last month as follows:

Refined Iron:	Cts. per lb.
1 to 1⅞-in. round and square	1.75
1½ to 4-in. × ⅜ to 1-in.	1.75
1½ to 4-in. × ¼ to 5/16	1.85
Rods—⅝ & 11/16 round & square	1.85
Angles:	
3-in. × ¼-in. and larger	2.00
3-in. × 3/16-in. and ⅛-in.	2.25
1½ to 2½-in. × ⅛-in.	2.25
1½ to 2¾-in. × 3/16-in. and thicker	2.00
1 to 1¼ × 3/16-in.	2.10
⅞ × ⅛-in.	2.30
¾ × ⅛-in.	2.40
⅝ × ⅛-in.	3.45
½ × 3/32-in.	4.25
Tees:	
1-in.	2.65
1¼-in.	2.45
1½ × 2½ × ¼-in.	2.15
1½ × 2½ × 3/16	2.35
3-in. and larger	2.15
Beams	2.00
Channels, 3-in. and larger	2.00
Bands—1½ to 6 × 3/6 to No. 8	2.30
Norway bars	3.60
Bessemer Machinery, Steel	1.90
Cast steel, base	7.00
Special cast steel, base	14.00 to 15.00

LAG SCREWS.—Quotations are without change. Cone point lag screws are sold at a discount of 75 and 10% from list. Net prices are as follows:

	Net price per 100 — ¼-inch.	⅜-inch.	1-inch.
3½-inch	$1.17	$2.40	$5.00
4 -inch	1.25	2.55	5.25
4½-inch	1.33	2.70	5.50
5 -inch	1.40	2.85	5.80
6 -inch	1.58	3.20	6.40
7 -inch	1.73	3.50	7.00
8 -inch	1.82	3.85	7.60
9 -inch	2.05	4.10	8.20
10 -inch	2.25	4.45	8.75
11 -inch	2.40	4.70	8.30
12 -inch	2.60	5.00	9.90

CHAIN.—Prices are unchanged and the following are named for cask lots of 500 lbs. to consumers. The quotations are per 100 lbs., f. o. b. Pittsburg:

Size in ins.	Proof.	BB.	BBB.
3/16	$8.10	$9.35	$9.85
¼	5.55	6.80	7.30
5/16	4.55	5.80	6.30
⅜	4.00	5.25	5.75
7/16	3.70	4.95	5.45
½ and 9/16	3.50	4.75	5.25
⅝	3.40	4.65	5.15
¾	3.30	4.55	5.05
⅞	3.20	4.45	4.95
1	3.10	4.35	4.85
1⅛ and 1¼	3.20	4.45	4.95

Prices of hand-made chains are unchanged:

Size in inches.	BBB crane chain.	BBB crane, dredge hoisting or steam shovel hoisting chain.	Special "Warwick" crane, hoisting steam shovel hoisting & dredge hoisting chain.	Special "Trident" crane, steam shovel hoisting & dredge hoisting chain.
⅝	$7.95	$8.20	$9.15	$9.15
¾	7.15	7.45	8.45	8.45
⅞	7.67	6.90	7.90	....
1	6.15	6.40	7.45	....
1⅛	5.75	5.95	6.90	....
1¼	5.65	5.90	6.85	....
1⅜ to 1⅞	5.55	5.75	6.80	....

COKE.—The production of coke is steadily increasing and is now about 360,000 tons weekly in the Upper and Lower Connellsville region. Prices are less firm than a month ago and for prompt shipments of standard makes of furnace coke $1.60 to $1.65 is quoted. For delivery up to Oct. 1 the quoted price is $1.80 to $2 per net ton, at oven. Prompt shipments of 72-hr. foundry coke can be had at $2, while for delivery later in the year, $2.25 to $2.40 per net ton at oven is quoted.

SPIRAL RIVETED PIPE.—Prices continue unchanged from the last report. The prices given below are f. o. b. factory, freight equalized, with New York City being figured at a discount of 50, 10 and 10% from list. They are for orders amounting to about $250. For large orders of several carloads, prices are from 12½% to 20% cheaper.

Diameter in ins.	*Thickness of steel, Birmingham wire gage.	Net price per 100 ft. With bolted joints complete. — Plain.	Asphalted.	Galvanized.
3	20	$21.80	$14.21	$20.70
4	18	19.76	21.48	30.74
5	18	23.40	23.70	37.14
6	16	33.05	35.76	49.73
7	16	37.58	40.76	56.82
8	16	43.17	46.80	65.00
9	16	50.06	54.10	74.22
10	14	66.42	71.08	96.15
11	14	71.20	76.57	102.24
12	14	83.75	89.15	118.32
13	14	89.67	96.55	127.98
14	14	99.14	105.51	138.85
15	14	108.05	114.89	151.92
16	14	117.53	124.82	166.58
18	12	167.43	175.95	226.44
20	12	183.79	193.30	248.39
22	12	200.48	210.64	269.21
24	12	219.92	231.07	293.99
26	10	280.26	292.41	370.78
28	10	301.32	314.89	395.37
30	10	324.81	399.15	430.64

*Made in both lighter and heavier gages at corresponding differences in price.

NAILS.—The demand for wire nails is large and business is more active than any time in the last eight months. Wire nails in Pittsburg are sold at $1.80 base in carload lots to retailers with an advance of 10 cts. for less than carload lots. In New York wire nails are sold from store at $2.05 per keg. The makers of cut nails have advanced prices 5 cts. per keg. Cut nails are now held at $1.70 per keg in carload lots Pittsburg, and $2.05 per keg from store New York. All of these prices are per 100 lbs.

WIRE.—The wire trade is active, an especially large demand coming from the West. One wire mill is practically sold up to July 1 and is not seeking new business. Prices of wire are 5 cts. per 100 lbs. higher than last month as follows: Carload lots, to retailers, annealed, $1.65; galvanized, $1.95. Galvanized barbed wire, to jobbers, $2.10; painted, $1.80. These prices are f. o. b. mill Pittsburg.

SWEDISH STEEL.—Business is quiet. Prices are without change. Drill steel, either round, hexagon or octagon, is 6 cts. per lb. for all sizes ⅝ to 2 ins. For sizes 2¼ to 3 ins. 7 cts. is quoted and 3¼ to 4 ins. is 7½ cts.

Hollow drill rod is held at 12½ to 15 cts. for the imported.

Anvils of Swedish steel are held at 9 to 9½ cts. per lb. They weigh from 80 to 600 lbs.

SWITCH POINTS.—The following prices are named, f. o. b. mill for switch points in lots of ten or more pair: For 60-lb. rail, 10-ft. points, $16.25; 15-ft. points, $17.50 for 70-lb. rail; 10-ft. points, $18; 15-ft. points, $25; for 80-lb. rail, 10-ft. points, $25.50; 15-ft. points, $27.75; for 90-lb. rail, 15-ft. points, $30.50; for 100-lb. rail, $33.50. All of the above are furnished with three rods, except the 10-ft. points for 60 or 70-lb. rail, which have only two.

BOLTS.—Prices are without change. The discount on common carriage bolts, to the retail trade and large consumers is 70 and 7½% from list, on bolts ⅜ × 6 ins., and smaller. The lowest price is 65 and 5% discount for larger and longer bolts. Net prices are as follows:

Length in inches.	Diameter in inches — Net price per 100. ⅜	½	¾
4	$0.74	$1.22	$2.86
5	0.83	1.36	3.15
6	0.92	1.52	3.50
7	1.22	1.65	3.75
8	1.34	1.80	4.25
9	1.45	1.95	4.50
10	1.55	2.20	4.75
12	1.75	2.40	5.25
14	1.90	2.70	5.90
15	2.05	2.85	6.25
18	2.40	3.25	7.20
20	2.60	3.50	7.75

FROGS.—For mill shipments of ten or more, prices are as follows: Bolted frogs No. 7, for 60-lb. rail, $15; for 70-lb. rail, $16.50; for 80-lb. rail, $18; No. 8 frogs for 90-lb. rail, $21; for 100-lb. rail, $23. Plate frogs No. 7, riveted to ⅝-in. plate for 60-lb. rail, $18; for 70-lb. rail, $20; for 80-lb. rail, $21.50. No. 8 frogs bolted to a ¾-in. plate for 90-lb. rail are $25.50; for 100-lb. rail, $27.50.

TRIANGULAR MESH.—[illegible] demand is broad and consumers are [illegible] buying freely. The following quotations [illegible] for the lots of the size named f. o. b. [illegible] in Pittsburg district:

Style No.	Cross sec. area per ft. width.	Price per 100 [illegible] — Carload lots	Less than carloads and more than 10,000 sq. ft.
4	.102	$1.0[illegible]	$1.2[illegible]
5	.077	.8[illegible]	.9[illegible]
6	.058	.6[illegible]	.78
7	.041	.5[illegible]	.61
23	.170	1.7[illegible]	2.08
24	.142	1.48	1.80
25	.124	1.32	1.60
26	.110	1.20	1.45
27	.085	.98	1.19
28	.066	.81	.98
29	.049	.67	.81
31	.261	2.5[illegible]	[illegible]
32	.225	2.20	2.67
33	.196	1.96	2.38
34	.146	1.51	1.82
35	.109	1.20	1.45
36	.075	.89	1.07
38	.380	3.62	4.38
39	.325	3.12	3.77
40	.283	2.71	3.30
41	.208	2.08	2.52
42	.151	1.58	1.92
43	.101	1.13	1.36

This material is made in regular widths of 18, 22, 26, 30, 34, 42, 46, 50, 54 and 58 ins. Standard lengths of rolls are 150, 300 and 600 ft. Cutting to special length is charged extra.

BARS, CONCRETE REINFORCING.—There is a better demand for bars for reinforcing purposes than in a long time. In Pittsburg 1.40 cts. is demanded for concrete bars and the following quotations are based on that price:

	Cts. per lb. — Plain.	*Deformed.
¾-inch and larger	1.40 to 1.50	1.45 to 1.55
⅝-inch	1.45 to 1.55	1.50 to 1.60
½-inch	1.50 to 1.60	1.55 to 1.65
⅜-inch	1.65 to 1.75	1.70 to 1.80
¼-inch	1.90 to 2.00	1.95 to 2.05

Bar from stock Pittsburg are usually cut to the required length without extra charge. Prices per lb. are as follows:

	Cts. per lb. — Plain.	*Deformed.
¾-inch and larger	1.60 to 1.70	1.70 to 1.80
⅝-inch	1.65 to 1.75	1.75 to 1.85
½-inch	1.70 to 1.80	1.80 to 1.90
⅜-inch	1.85 to 1.95	1.95 to 2.05
¼-inch	2.10 to 2.20	2.20 to 2.30

*The price of deformed bars varied according to the shape and some are held much higher than these prices.

EXPANDED LATH.—Prices are unchanged. The price for carload lots given below are f. o. b. mill Central Ohio:

Carload Lots. Price in cts. per sq. yd.

Gage.	Weight per sq. yd.	Black.	Painted.	Galvanized.
27	2¼ lbs.	11½	12¼	17½
26	2½ lbs.	12½	13¼	18½
25	2 lbs.	13½	14¼	19½
24	3.4 lbs.	14½	15¼	20½

Small Lots from New York Store
Prices in cents per sq. yd.

27	13	13¾	19
26	14	14¾	20
25	15	15¾	21
24	16	16¾	22

This lath is packed 9 sheets to the bundle.

DIAMOND LATH FROM STORE.

Designation.	Gage.	Weight per sq. yd.	Price. Per sq. yd. Black, cts.
A	24	4 lbs.	20
A Special	24	4 lbs.	18
B	27	2.9 lbs.	16½
B Special	27	2.9 lbs.	15
B B	27	2.33 lbs.	14
Square Twist	24	4 lbs.	20
Diamond No. 24	..	3.75 lbs.	20
" No. 24 Special	..	3 lbs.	16½
" No. 26	..	2.66 lbs.	16½
" No. 26 Special	..	2.1 lbs.	14
Square Twist No. 27.	..	2.75 lbs.	14½

INTERLOCKING PLATES.—For interlocking steel plates, of 24 gage black steel f. o. b. mill Central Ohio, the following prices are named:

Length.	Per 100 sq. ft. Weight.	Price. Flat Sheets.
Under 4 ft.	100 lbs.	$11.00
4 to 6 ft.	160 lbs.	10.00
6 to 8 ft.	160 lbs.	9.50
8 to 10 ft.	160 lbs.	9.00
10 ft.	160 lbs.	8.50

Curved sheets are held at an advance of $1 per 100 sq. ft. over flat.

REINFORCING MATERIAL.

EXPANDED METAL.—A new price list has been adopted by the makers of "Steelcrete," which are as follows f. o. b. Pittsburg:

Mesh.	Gage-stubbs.	Designation.	Weight. per sq. ft.	Sectional area per ft. width.	Price per sq. ft. in cts. — Carload.	10,000 sq. ft. to carload.
½-in.	18	Standard	.74	.209	3.71	4.04
¾-in.	13	Standard	.80	.225	3.69	4.03
1½-in.	12	Standard	.70	.207	3.43	3.76
2 -in.	12	Standard	.56	.166	3.20	3.48
3 -in.	13	Standard	.28	.087	1.32	1.44
3 -in.	10	Light	.50	.148	1.55	1.69
3 -in.	10	Standard	.60	.178	1.80	1.97
3 -in.	10	Heavy	.90	.267	2.46	2.69
3 -in.	10	Ex. heavy	1.20	.356	3.18	3.47
3 -in.	6	Standard	1.38	.400	3.85	4.20
3 -in.	6	Heavy	2.07	.600	5.64	6.16
4 -in.	16	Old style	.42	.093	1.78	1.94
6 -in.	4	Standard	.84	.245	2.42	2.64
6 -in.	4	Heavy	1.26	.368	3.38	3.68

CLAY PRODUCTS.

HOLLOW WALL TILE.—The leading manufacturers report business far more active than last year, in fact, shipments are about twice as great. The increasing demand is [illegible] The market is strong and prices continue

steady for hollow wall building tile, f. o. b. factory, Perth Amboy, N. J., quotationps are as follows:

Size.	Price per block. in cts.
	5.25
4 × 12 × 12-in.	6.6
6 × 12 × 12-in.	8.9
8 × 12 × 12-in.	10.5
10 × 12 × 12-in.	12.1

Fireproofing partition blocks are unchanged as follows:

Size.	Price per block. in cts.
2 × 12 × 12-in.	4.4
3 × 12 × 12-in.	4.4
4 × 12 × 12-in.	5.
6 × 12 × 12-in.	6.6
8 × 12 × 12-in.	8.8

These prices are for what would be considered small orders—approximately carload lots. For quantities which exceed $1,000 worth of material concessions will be made.

DUCT TELEPHONE.—Small lots are sold at 4½ to 5 cts. per duct ft., but considerable concessions are made for desirable orders.

FLUE LINING.—Prices continue without change. The discount from list f. o. b. mill, is 85%. Delivered in New York, in small lots, they can be had at 78%. Based on a discount of 85% at the mill, net prices are as follows:

	Weight in lbs.	Price per ft.
4½ × 8½-in.	14	$0.04½
4½ × 13-in.	20	.068
4½ × 18-in.	40	.15
6 × 12-in.	22	.075
7 × 7-in.	15	.053
8½ × 8½-in.	18	.068
8½ × 13-in.	28	.098
8½ × 18-in.	45	.135
12 × 16-in.	45	.15
13 × 13-in.	38	.128
13 × 18-in.	57	.18
14 × 16-in.	60	.165
16 × 16-in.	65	.24
16 × 20-in.	80	.30
18 × 20-in.	75	.30

SEWER PIPE.—The market is strong. Prices were advanced March 20. The revised discounts applying to the Eastern List are as follows: For all sizes up to and including 24-in. 85% discount; for 27 and 30-in., 76% discount; for 33 and 36-in., 72% discount.

At these discounts the net prices per ft. for carload lots, f. o. b. factory, are as follows:

3-in.	$0.03
4-in.	.0375
5-in.	.045
6-in.	.06
8-in.	.082
10-in.	.12
12-in.	.15
15-in.	.202
18-in.	.285
20-in.	.336
21-in.	.405
22-in.	.45
24-in.	.486
27-in.	1.09
30-in.	1.32
33-in.	1.75
36-in.	1.96

ROOFING TILE.—Prices are steady, and continue without change. The best grade of promenade roofing tile in flat blocks for high-grade roofs is sold at $20 per M. for run of kiln, and $30 per M. for selected. A cheaper form of tile with a smooth surface can be had at $10 to $12, but it is not suitable for roof gardens. These prices are for 9 × 9-in. blocks, f. o. b. factory. It requires 258 blocks to lay 100 sq. ft. of roof surface and, in consequence the price per 100 sq. ft. of roof surface would be $4 to $5 for the *smooth* blocks; $7.82 for the run of kiln, and $10.73 for the selected.

Vitrified tile, unglazed, of the French or Spanish type, is sold at approximately $8.50 per 100 sq. ft. of roof surface, f. o. b. factory. Glass tiles are sold at 60 cts. each. It requires 183 of these for 100 sq. ft. of roofing.

MILL SUPPLIES.

SHAFTING.—The demand is better and specifications on old contracts are coming in more freely. Discounts are unchanged from last month, at 57% off list for carload lots. Small lots are obtainable at 52% off, and delivery is allowed in base territory.

The following net prices per ft. are based on the 52% discount: ¾-in., 4 cts.; 1-in., 7 cts.; 1¼-in., 10.90 cts.; 1½-in., 14.20 cts.; 1¾-in., 19.10 cts.; 2-in., 25.50 cts., 2¼-in., 32.50 cts.; 2½-in., 40 cts.; 2¾-in., 48.50 cts.; 3-in., 58 cts.; 3½-in., 85 cts.; 4-in., $1.08; 4½-in., $1.70; 5-in., $2.26; 5½-in., $2.90; 6-in., $3.70.

CHAIN BELTING.—Trade is satisfactory. Prices continue unchanged.

From 3 HP. to 10 HP. 30-in. centers complete, with two sprockets, $7 to $8 per HP.; from 10 HP. to 25 HP., 36-in. centers complete, $5 to $6 per HP.; from 25 HP. to 100 HP., 60-in. center complete, $4 to $5 per HP.; from 100 HP. to 500 HP., 72-in. center complete, $3 to $4 per HP.

PACKING.—Prices continue without change. The following quotations are for small lots in original packages.

Asbestos wick and rope, 13 cts.; sheet rubber, 11 to 13 cts.; pure gum rubber, 40 to 45 cts.; red sheet, 40 to 50 cts. Cotton packing can be had at 16 to 25 cts.; jute at 3¼ to 3½ cts., and Russian at 9 to 10 cts.

BELTING.—Prices are slightly easier on leather belting. The revised discounts are as follows: Extra heavy, 60%; heavy, 60 & 5%; medium, 70%; light, 70 & 5%; standard, 70 & 10%.

Quotations on rubber belting are unchanged, the discount being 40% from list for the best grade; 40 and 10% for standard and 60 and 10% for competition.

The following net prices per ft. of leather belting are computed at the above discounts. The price of rubber belting is, as stated, unchanged from last month, and the prices may be found on page 103 of issue of March 2.

LEATHER BELTING PRICE PER LB.

Width, ins.	Extra Heavy.	Medium.	Standard.
1	$0.095	$0.072	$0.065
1½	.144	.108	.097
2	.192	.144	.12
2½	.24	.18	.162
3	.29	.215	.194
3½	.35	.252	.227
4	.385	.29	.26
5	.48	.36	.325
6	.58	.433	.39
7	.68	.50	.455
8	.77	.58	.52
9	.86	.65	.58
10	.96	.72	.65
11	1.05	.79	.71
12	1.15	.87	.78
14	1.35	1.01	.91
16	1.53	1.15	1.03
18	1.73	1.30	1.17
20	1.93	1.45	1.30
22	2.10	1.58	1.42
24	2.30	1.73	1.55
26	2.50	1.88	1.69
30	2.87	2.16	1.95
36	3.97	2.60	2.34
48	4.62	3.48	3.10

LUBRICATING OILS.—Quotations continue without change, the following figures being named for 5-bbl. lots:

	Cts. per gal.
*Cylinder, dark	20 to 27
*Cylinder, steam, refined	14 to 22
Neutral Oils, filtered:	
Stainless white, 32 to 34 gravity	28 to 29
Lemons, 33 to 34 gravity	17 to 19
Dark, 32 gravity	15 to 18
Crank Cast oil	15 to 17

*Prices are according to test.

HIGH-SPEED STEEL.—There is a very fair demand for all kinds of high-speed steel. Prices are without change at 50 to 75 cts. per lb.

COTTON WASTE.—Baled waste in New York is 10 to 11 cts. per lb.

FIRE HOSE.—Prices of hose are unchanged. The standard grade of underwriters' cotton rubber-lined hose, 2⅝-in. diameter, warranted, 350 lbs. pressure, is sold in 50-ft. lengths, complete with couplings, at 65 cts. per ft. Common hose, 2½-in. diameter, tested to 200 lbs. pressure, is 35 cts. per ft.

PAVING MATERIAL.

A great deal of paving and road work will be done in the middle West this year and while no great amount of strictly new work is contemplated in the East as far as paving is concerned, repairing will be much in excess of that in former years. The most important contracts let recently have been for the highway improvement in the State of New York and gravel roads in Indiana. It is noticeable that practically all the contracts in New York call for some kind of a hydrocarbon binder.

ROAD OILS.—Business is active and the demand has improved to a marked degree. Prices are unchanged, 30% asphaltum oil being quoted at 4 cts. per gal. Texico macadam asphalt, 90 to 95%, is 11 cts. per gal. f. o. b. New York of Philadelphia; A or X Tarvia in bbls. is 8½ to 9½ cts. per gal.; B grade in bbls. is 7 to 8 cts. per gal.

GRANITE BLOCK.—Prices are steady, Cape Ann blocks, delivered in New York City, are sold at $1.60 to $1.75 per sq. yd. Dressed block to lay with ¼-in. point is $2 to $2.10 per sq. yd.

ASPHALTUM.—Prices of Asphaltum are steady and firm. Trinidad is quoted at $25 per net ton. California asphaltum is $26 to $30 per ton, f. o. b. New York and $16 to $19 at point of shipment.

PAVING BLOCKS, WOOD.—There promises to be a great deal of wood pavement laid this year, and it is a noticeable fact that contractors are very anxious to secure paving work. Prices continue without change as follows:

For long leaf yellow pine blocks having not less than 20 lbs. oil per cu. ft., $1.85 is quoted for 3-in. block; $2.05 for 3½-in. block and $2.25 for 4-in. block. All these prices are per sq. yd., f. o. b. New York.

VITRIFIED BRICK.—Prices are unchanged at 55 to 70 cts. per sq. yd. at point of shipment. Delivered in New York or New England territory brick is selling at $1 to $1.25 per sq. yd.

LUMBER.

Some betterment in trade is observed. The demand is improving and owing to restricted operations in many cutting districts there is not as much lumber pressing on the market as last year. Some slightly higher prices have been named, but in general prices show but little change compared with last month.

HEMLOCK.—The largest demand is at interior points. The base price of Pennsylvania continues unchanged at $21. West Virginia is obtainable at $20.50.

The following prices are ruling in New York, and are unchanged from a month ago: Price Per Thousand f. o. b. cars New York.

Size.	Length 10 ft.	12 ft.	14 ft.	16 ft.
2 × 4-in.	$23.00	$21.00	$21.00	$23.00
2 × 6-in. to 2 × 10-in.	21.00	21.00	21.00	18 to 20
3 × 4-in. to 12 × 12-in.	21.50	21.50	22.00	19 to 21
1 × 8-in.	....	18.00	18.00	18.00
1 × 10-in. and 1 × 12-in.	....	18.50	18.50	18.50

LONG LEAF YELLOW PINE.—The demand, although slightly better than last month, is only fair. Prices continue unchanged, and for delivery from yard in New York and vicinity, for material classed as "Merchantable" under the 1905 rules of the Association prices are as follows:

Prices Per Thousand Feet in Yard, New York.

	Length 20 ft. base.	21 to 25 ft.	26 to 30 ft.	31 to 35 ft.
2 in. wide and under by 8 in. thick and under	$31	$32	$33	$34
10 in. wide by 10 in. thick and under	33	34	35	36
12 in. wide by 12 in. thick and under	36	37	38	39
14 in. wide by 14 in. thick and under	43	44	46	46
16 in. wide by 16 in. thick and under	45	46	47	48

For pieces longer than 35 ft. and less than 40 ft. add from $4 to $8 to base price.

CROSS TIES.—For some sizes there is an excellent demand, particularly for 6 × 8. The market seems oversold on this size. For 7 × 9 there is very little inquiry.

The following prices, quoted f. o. b. New York by G. S. Baxter Co., 15 William St., New York City, are unchanged from last month as follows:

	Cents each.
7 × 9-in. by 8 ft. 6-in.	75
6 × 9-in. by 8 ft. ....nominal	72
6 × 8-in. by 8 ft.	67

Second-class, sound and square edge, are quoted as follows:

	Cents each.
7 × 9-in. by 8 ft. 6-in.	61
6 × 9-in. by 8 ft. ....nominal	51
6 × 8-in. by 8 ft. ....nominal	45

LATH.—A wider difference is noted in the price of lath in Boston than last month, 1⅝-in. sells at $3.70 to $3.80 and 1½-in. at $3.40 to $3.50.

SPRUCE.—The sellers have forgotten about Canadian Reciprocity, for the time being, and building orders from yard Boston are now quoted at $23.50. It is not without interest to note that this is the same price as quoted a year ago.

OILS AND PAINTS.

PETROLEUM PRODUCTS.—The demand is more active, although there has been no change in price.

The Standard Oil Co. quotes the prices of crude oil in bbls. at the wells as follows: Pennsylvania, Second Sand and Tiona, $1.30; Mercer black is 87 cts.; Corning, 77 cts.; New Castle, 84 cts.; Illinois, 60 cts.; Illinois heavy, below 30 gravity, 52 cts.; Kansas heavy, 30 cts.

In the New York market petroleum from tank wagon is unchanged at 6 cts. per gal.

Auto naphtha is ½ ct. cheaper at 13¼ cts., but stove gasoline is unchanged at 13¾ cts.

Fuel oil is 90 cts. to $1 per bbl.

LINSEED OIL.—The market is active and prices have eased off slightly. Consumers are buying much more freely, and it is evident that much oil will be used this year. While supplies will be short, lower prices are looked for in the Fall, and the flaxseed market has already declined. Flaxseed is now quoted at $2.47, Duluth.

Raw linseed oil is now selling at 92 to 93 cts. per gal. in 5-bbl. lots. Boiled oil is held at an advance of 1 ct. per gal.

SPIRITS TURPENTINE.—New high records are being made almost daily in the price of turpentine. A month ago sales were made in New York at 91½ cts. The lowest quotation now heard is $1.10 and some are asking $1.11. Receipts at Southern ports, however, are increasing, and the present shortage of supplies will probably be only a temporary matter. In Wilmington, N. C., the market is quoted at $1.03, and in Savannah, Ga., at $1.05.

The recent advances which have been made in the price of turpentine bring the level for spirits the highest that has been reached since the Civil War. Spirits are now $1.05 per gal. in Savannah. A year ago the price was approximately 60 cts. per gallon at that point, and the lowest price known was reached in 1896, when 22 cts. a gallon was paid. While it is true that part of the advance is due to speculative causes, there is another potent reason. Formerly the labor in the turpentine forests could be obtained at a very small wage, but since the advent of 12 to 15-cent cotton in the South the laborers do not have to work as many days in order to provide sustenance, and as that is all they desire the shortage of labor has gone from bad to worse. The forests are gradually disappearing, and with the disappearance the owners are seeking to conserve them, and instead of slashing the trees are tapping them in order that they may produce for many seasons instead of only a few.

PAINTS.—The demand is good for all kinds of paints. Prices of white lead in oil are unchanged. For lots of 500 lbs. or over, in 250 and 500-lb. kegs, 7½ cts. per lb. is quoted; in 25 and 50-lb. kegs, 7¾ cts. is quoted. Red lead and litharge in bbls., half bbls. and 100-lb. kegs, is 8 cts. per lb.

Graphite paint is moving slowly. The best grades of graphite paint in linseed oil can be purchased at $1.40 per gal.

Hydrox preservative paint is 75 cts. per gal. in bbl. lots, New York City.

Colors in oil are quoted at the following prices per lb.: Lamp black, 12 to 14 cts.; Chinese blue, 36 to 46 cts.; Prussian blue, 32 to 36 cts.; Van Dyke brown, 11 to 14 cts.; Chrome green, 12 to 16 cts.; Raw or Burn Sienna, 12 to 15 cts.; Raw or Burnt Umber, 11 to 14 cts.

LINE CONSTRUCTION.

ALUMINUM WIRE.—The demand is limited and prices are without change at 31 cts. base.

POLES.—Cedar poles are quoted as follows by the R. D. Dowie Pole Co., New York Block, Seattle, Wash. The price is f. o. b. loading point:

Length in ft.	Diameter at top. 8-in.	9-in.
30	$2.70	....
35	3.15	$3.50
40	3.60	4.00
45	...	4.50
50	...	5.00
55	...	5.50
60	...	7.20
65	...	9.75
70	...	10.50
75	...	11.25
80	...	12.00

The prices of 30 and 35-ft. poles with a 7-in. top are 25 cts. higher. Otherwise chestnut poles, f. o. b. Mechanicsville, N. Y., are quoted by T. C. Luther of that place as follows:

Length in feet.	Price each. Diameter at top. 5-in.	6-in.	7-in.
25	$1.50	$2.00	$2.75
30	2.50	2.75	3.50
35	2.75	3.25	4.25
40	3.25	4.00	5.50
45	4.00	5.50	7.50
50	5.50	7.50	9.50

FIR CROSS ARMS.—Prices are unchanged as follows:

Length. Size, 3¼ × 4¼-in.	Price per arm in cts. Pacific Coast.	Chicago.	New York.
3 ft., 2-pin	8	13½	15½
4 ft., 2-pin	11	18½	21
5 ft., 4-pin	16	26½	28½
6 ft., 4 and 6-pin	20½	31½	36
8 ft., 6 and 8-pin	28	43	48½
10 ft., 8, 10 and 12-pin	37	55½	67½

TELEGRAPH WIRE.—For lots of fair size, the wire measured in Birmingham wire gage, the prices in cts. per lb. are as follows: "Extra Best Best," Nos. 6 to 9, 4⅜ cts.; Nos. 10 and 11, 4½ cts.; No. 12, 4⅝ cts.; No. 14, 5⅛ cts. "Best Best," Nos. 6 to 9, 3½ cts.; Nos. 10 and 11, 3⅜ cts.; No. 12, 3½ cts.; No. 14, 4 cts. Actual freight is allowed from Trenton, N. J., where it does not exceed 25 cts. per 100 lbs.

INSULATORS.—Prices are without change. Glass insulators in lots of more than 1,000 and less than 10,000 are sold at the following prices per 1,000: Double petticoat, 20 oz., $33; Western Union, $30.25; No. 2 cable, $53.90; No. 4 cable, $210; Muncie type, 7-in., $236.50; No. 3 triple-petticoat, 4½-in., $90.75.

COPPER WIRE.—A great deal of wire has been sold in the last two months. The low price of 13 cts., which has been made on more than one occasion, was such an inducement that consumers of round lots came into the market for large quantities. This was largely for smaller sizes, such as telephone wire, but considerable transmission and trolley wire has been sold. The interurban railways are in a better financial condition than they have been for several years, and are in shape to take advantage of any profitable product. During the past week there has been considerable action by manufacturers and prices have advanced to 13¾ cts. base, which is the prevailing figure.

CHEMICALS.

	Cts. per lb.
Nitric acid, 36°	3.87½ to 4.25
Nitric acid, 40°	4.50 to 4.87½
Sulphuric, 60°	0.90 to 1.00
Sulphuric, 66°	1.00 to 1.25
Sal Ammoniac, lump	9.25 to 9.75
Sal Ammoniac, granulated	5.87½ to 6.00
Sal Ammoniac, gray	6.00 to 6.25
Sulphur, roll	1.85 to 2.15
Sulphur, flour	2.00 to 2.40
Sulphur, flowers	2.20 to 2.60
	Per gallon.
Alcohol, grain, U. S. proof	$2.54 to $2.57
Alcohol, denatured, 5-bbl. lots	.41 to .42
Alcohol, denatured, ½-bbls	.46 to .47
Alcohol, wood, 95 to 97	.52 to .57
Alcohol, wood, purified	.80 to ..

METALS.

COPPER.—Although a large aggregate of sales of copper metal is reported by the prominent distributing interests for March, trade conditions, as a whole, have not been satisfactory. Business was done at receding prices, in all grades; the end of the month showing but slight improvement from the low levels reached. It is estimated that between 125,000,000 and 150,000,000 lbs. of copper were disposed of by domestic sellers during March, within the price ranges of 12.75 to 12.37½ cts. for lake; 12.50 to 12.25 cts. delivered 30 days for electrolytic, and 12.25 to 12 cts. for casting. All grades are being offered to-day at ⅛ ct. above the respective inside figures, with every probability of negotiation inducing concessions of from 5 to 10 points.

The wire drawers and manufacturers of electrical apparatus were the principal buyers for domestic delivery. Competition for business in the finished product of those interests has been very keen, however, and prices have suffered measurably in consequence and made it imperative to consider the smallest fractional reduction possible in buying the refined metal. Other branches of the industry have not showed in the general improvement in the business of the country which has developed since Jan. 1. This is particularly noticeable in the light demand from the brass manufacturers.

While foreign interests report a satisfactory consumption demand, buying for export was not done on a large scale, in March. It is reported, however, that the London fortnightly statistics will reflect the favorable foreign consumption, by showing a reduction in stocks held abroad.

The exports of copper for March aggregate 23,275 tons.

The report of the Copper Producers' Association for February is as follows: Production 109,828,297 lbs., decreased 5,668,294 lbs.;

domestic deliveries 50,518,998 lbs, increased 8,440,431 lbs; deliveries for export $45,111,-019 lbs., decreased 8,097,720 lbs., and stocks in first hands increased 14,198,280 lbs., making the surplus of March 1, 156,637,770 lbs.

TIN.—The pig tin situation, while still controlled by the foreign syndicate, has worked into more normal relations. At the end of February spot contracts were only obtainable at a premium of 1 ct. per lb. over nearby positions, and the London spot equivalent. This premium has entirely disappeared, and though the metal is still scarce for early delivery, domestic quotations are on a parity with the foreign market.

The month has been a notable period for both arrivals, and deliveries into consumption. The statistics compiled by Secretary Mayer, of the New York Metal Exchange, disclose a new high record for each. Deliveries aggregated 5,100 tons, and arrivals 5,865 tons for the month. This resulted in an increase in stocks in warehouse and at landing of 765 tons, making supplies at this point 1,992 tons.

Consumption in this country is going on at an unprecedented rate, as shown by the domestic deliveries, and indications bearing on the foreign trade point to a similar condition there. The complete European statistics are not yet available, but what is known concerning them leads to the belief that visible supplies abroad will be reduced about 300 tons. This is remarkable in view of the fact that 2,500 tons of tin were sold at the Banca auction, which was held March 29, and will figure in the monthly report. The average price obtained at the Banca sale equalled 40.87½ cts. c. i. f. New York.

There are 3,364 tons of tin afloat for Atlantic ports.

LEAD.—The impression prevails in the pig lead trade that the leading seller either took care of its regular customers at lower figures than it quoted openly, or that the independent interests took all the business that was offered in this market. The metal has been obtainable at from 5 to 12½ points under the price of the former at all times during March, which makes the deduction appear reasonable. A somewhat better demand developed towards the end of the month and reduced the difference in prices considerably, but the outside offer is still 4.45 cts. in New York, compared with 4.50 cts., the asking price of the American Smelting & Refining Co.

SPELTER.—There was a reduced volume of inquiry for spelter during March as compared with February. Consumers of brass spelter have been noticeably inactive as buyers, and galvanized iron interests seem to have looked for their requirements early in the year. This has caused an irregular market, but price changes are not conspicuous.

Prime Western is offered at 5.65 cts. in New York, with little pressure to sell under that figure.

	Per lb.
Sheet Lead:	
Large lots	6.25 cts.
Small lots	6.75 cts.
Lead Pipe:	
Large lots	5.75 cts.
Small lots	6.40 cts.

MISCELLANEOUS METALS.—Small lots of metal and metal products can be obtained from jobbers' stores, New York, at the following prices:

	Per lb.
Bismuth	$2.25
Brass tubes, iron pipe sizes:	
½-in.	.19
¾ to 3-in.	.18
3½-in.	.19
4-in.	.20
Brass, sheets	.14½
Brass, rods	.14½
Solder, ¼ and ½ guaranteed	.24
Zinc, sheets	.08½
Manganese bronze rods	.16
Manganese bronze in crucible form	.14
Monel metal, ingot	.16

OLD METALS.—Miscellaneous lots of scrap metal amounting to about a ton can be sold to dealers in New York at about the following prices:

	Cents.
Copper, heavy and crucible	10.75 to 11.00
Copper, heavy and wire	10.50 to 10.75
Copper, light and bottoms	9.50 to 9.75
Brass, heavy	7.00 to 7.25
Brass, light	5.50 to 5.75
Heavy machine composition	9.25 to 9.50
Clean brass turnings	7.00 to 7.25
Composition turnings	8.25 to 8.50
Lead, heavy	3.75
Lead, tea	3.50
Zinc, scrap	4.00

HEATING SUPPLIES.

The price of heating supplies has fluctuated within narrow limits since the last report. This in spite of a reduction of about $3 per ton in the cost of the principal raw material, pig iron, and a general slackening of trade. It may be explained, perhaps, by the fact that a year ago the prices were, for that time, extremely low. Some effort is now being made, especially on the part of radiator and boiler manufacturers, to advance the quotation. This has been repeatedly done in times of adverse trade conditions in the past, and there is no reason why the manufacturers could not do so again if they chose. In connection with the price of heating supplies, the resolution adopted at the second annual convention of the National Association of Jobbers of Wrought Iron Pipe, held March 15, in Cleveland, was that action be taken favoring the sale of plumbing supplies direct by plumbers if buyers desired such supplies, even without the services of the plumber to install the fixtures. This matter will be taken up with the National Association of Master Plumbers, and is done with the idea of meeting mail-order competition. For years it has been contrary to the rules of the National Association of Master Plumbers for any member of that association to sell fixtures of any description unless the plumber should install the goods. This naturally has led up to the wide sale of plumbing fixtures by mail-order houses in particular, and the more general sale of plumbing goods by department and hardware stores. The plumbers have in most cities been aided by the passage of sanitary laws prohibiting the installation of any supplies except by the plumbers themselves. The adoption of a rule as outlined would probably have little effect in reducing the price of contract plumbing, but it would provide for an open market.

FURNACES.—The demand for furnaces shows an improvement, compared with last year. In the following list the principal types of different furnaces are given, and although by different makers, there is a slight variation in price, the quotations are approximately correct. These prices could be reduced, however, if furnaces were ordered in carload lots. The rate capacity is given in cubic feet. The following prices are for furnaces of the portable type, f. o. b. foundry:

Competitive Grade, Cast Radiator.

Diameter of fire pot.	Rated capacity cu. ft.	Price with casings.
20 in.	10,000 to 12,000	$42
23 in.	16,000 to 18,000	49
26 in.	20,000 to 23,000	61
30 in.	25,000 to 35,000	85

Competitive Grade, Steel Radiator.

Diameter of fire pot.	Rated capacity cu. ft.	Price with casings.
18 in.	8,000 to 10,000	$33
20 in.	11,000 to 13,000	39
23 in.	16,000 to 18,000	46
26 in.	20,000 to 23,000	58
30 in.	25,000 to 35,000	80

Fair Grade, Steel Radiator.

Diameter of fire pot.	Rated capacity cu. ft.	Price with casings.
18 in.	9,000 to 11,000	$40
20 in.	13,000 to 15,000	56
23 in.	18,000 to 20,000	54
26 in.	23,000 to 26,000	67
30 in.	26,000 to 35,000	88

Generator Type.

Diameter of fire pot.	Rated capacity cu. ft.	Price with casings.
19 in.	15,000 to 25,000	$85
22 in.	25,000 to 45,000	102
25 in.	45,000 to 60,000	117
30 in.	60,000 to 100,000	160

PIPES AND ELBOWS.—The following quotations prevail where supplies to the value of $50 or more are ordered at one time:

Diameter, ins.	Tin pipe, price per ft. cts.	Adjustable Elbows, each, Tin, cts.	Adjustable Elbows, each, No. 26 Galvanized Iron, cts.
6	8	9	11½
7	9	11	14
8	10	14	19
9	11	17	21
10	12	19½	28½
11	13	25	32½
12	14	29	39
13	16	35	44
14	18	45	50
16	22	60	78

Galvanized Iron Smoke Pipe, Riveted.

	6 in.	7 in.	8 in.	9 in.	10 in.	11 in.
24 Gage	10	11½	14	15	18	20
26 Gage	9½	10½	12½	14	16½	19
28 Gage	9	9	11½	13	15	17½

Floor Register Boxes, Tin.

Size of Box.	Price, each.
6 × 8 and 6 × 10-in	$0.40
8 × 8 and 8 × 10-in	.45
8 × 12-in	.50
9 × 12 and 10 × 12-in	.55
10 × 10-in	.60
10 × 16 and 12 × 14-in	.65
12 × 18-in	.75
12 × 20 and 14 × 18-in	.80
14 × 22 and 16 × 20-in	.90
16 × 24-in	1.00

Wall Register Boxes.

These boxes are 4 ins. deep, have 4-in. colllars and 1-in. flanges.

Size of Opening.	Price, each.
6 × 8, 6 × 10 and 8 × 10-in	$0.45
8 × 12-in	.55
9 × 12 and 10 × 12-in	.60
10 × 14-in	.65
10 × 16-in	.70

OFFSETS.—Tin offsets are used to make connections between round and oval pipes. Prices are as follows: 7-in pipe, 60 cts.; 8-in. pipe, 60 to 70 cts.; 9-in. pipe, 65 to 70 cts.; 10-in. pipe, 70 to 75 cts.; 12-in. pipe, 70 cts.

Oval Hot Air Pipe.

Size.	Price per ft.
3 × 8-in	$0.10
3 × 10-in	.11
3 × 12-in	.12
3½ × 10-in	.11
3½ × 12-in	.12
4 × 8-in	.10
4 × 10-in	.11
4 × 12-in	.13
4 × 14-in	.14
4 × 16-in	.16

Rectangular Hot Air Pipe.

Size.	Price per ft.
3 × 8-in	$0.10
3 × 10-in	.12
4 × 8-in	.11
4 × 10-in	.12
4 × 12-in	.13
4 × 14-in	.14
5 × 8-in	.12
5 × 10-in	.13
6 × 8-in	.12
6 × 10-in	.13

REGISTERS.—The general discount from the manufacturers' list is 63 2-3 to 70 %. This list is printed in many of the building pocketbooks, or may be obtained from manufacturers. The net prices of black Japan registers of the size in most general use are as follows:

Size of Opening.	Price, each. Register.	Price, each. Border.
6 × 10-in.	$0.48	$0.36
8 × 10-in.	.50	.38
8 × 12-in.	.57	.45
8 × 14-in.	.90	.60
9 × 12-in.	.63	.50
10 × 12-in.	.72	.53
10 × 14-in.	.95	.66
12 × 14-in.	1.30	.84
12 × 16-in.	1.06	1.03
14 × 16-in.	2.55	1.30
14 × 18-in.	2.70	1.36
16 × 20-in.	4.00	1.83
18 × 20-in.	5.85	2.30
18 × 24-in.	6.50	2.50

STEAM AND HOT WATER BOILERS.—In the following lists, are given the net prices of boilers, f. o. b. New York, or f. o. b. foundry, with a freight allowance of not more than 30 cts. per 100 lbs. In carload lots, full carloads freight is allowed. The ratings are those used in actual work, although it is a general accepted rule to use a boiler with 20 to 25% additional capacity. The prices include fire tools and for steam boilers, gages.

Steam Boilers.

Rated capacity, sq. ft. radiating surface.	Actual grate area. sq. ft.	Net cost, f. o. b. warehouse.
300	1.95	$52.00
425	2.60	69.00
550	3.25	81.00
600	3.32	86.00
750	4.15	107.00
800	4.08	112.00
900	4.98	122.00
1,000	5.10	132.00
1,100	5.44	142.00
1,200	6.12	152.00
1,300	6.24	162.00
1,350	6.80	167.00
1,600	8.16	192.00
1,625	7.80	194.00
1,850	9.52	217.00
1,950	9.36	237.00
2,100	9.12	242.00
2,275	10.92	258.00
2,625	11.40	279.00
3,150	13.08	317.00
3,675	15.96	355.00
4,200	18.24	390.00
4,750	18.00	426.00
5,700	21.60	486.00
6,650	25.20	555.00
7,650	28.80	617.00
8,550	32.40	678.00

Hot Water Boilers.

Rated capacity, sq. ft. radiating surface.	Actual grate area. sq. ft.	Net cost, f. o. b. warehouse.
500	1.95	$49.00
700	2.60	66.00
800	3.25	78.00
1,000	3.32	82.00
1,250	4.15	104.00
1,300	4.98	119.00
1,500	4.08	109.00
1,650	5.10	128.00
1,825	5.44	139.00
2,000	6.12	148.00
2,150	6.24	159.00
2,225	6.80	163.00
2,650	8.16	188.00
2,675	7.80	190.00
3,050	9.52	213.00
3,200	9.36	223.00
3,450	9.12	234.00
3,725	10.92	250.00
4,325	11.40	272.00
5,200	13.68	310.00
6,050	15.96	348.00
6,925	18.24	386.00
7,825	18.00	420.00
9,400	21.60	483.00
10,975	25.20	545.00
12,550	28.80	610.00
14,125	32.40	670.00

RADIATION.—The market is firm, and the price of standard 38-in. hot water radiation is 18 cts. per sq. ft. of radiating surface. Steam radiation is 17.65 cts. per sq. ft. Radiation is subject to the same freight allowances as boilers.

USED ELECTRICAL EQUIPMENT.

At an auction sale, held March 1, by the Middletown Electric Light Co., Middletown, Conn., the direct-current apparatus was sold. All the apparatus was operating successfully up to the time it was replaced by A. C. motors. All motors of ½-HP. and larger were furnished with starting boxes and practically all with pulleys. At the sale there were present about 35 bidders. Henry Floy, 165 Broadway, New York, N. Y., is Consulting Engineer for the Middletown Electric Light Co.

MOTORS.—One each of the following motors were sold at the prices named: General Electric, ½-HP., 115-volt, 1,650 r.p.m., $11.50; General Electric, ½-HP., 115-volt., 1,650 r.p.m., $12.50; Emerson, ½-HP., 110-volt, 1,021 r.p.m., $11; Crocker-Wheeler, ½-HP., 230-volt, 1,300 r.p.m., $11; Westinghouse, ½-HP., 220-volt, 2,000 r.p.m., $13.50; New England, 1-HP., 220-volt, 1,200 r.p.m., $6; New England, 1-HP., 220-volt, 1,350 r.p.m., $7.50; Holtzer, Cabot, 1-HP., 220-volt, 275 to 350 r.p.m., $18; General Electric, 1-HP., 230-volt, 1,275 r.p.m., $20; Election Mfg. Co., 1½-HP., 220-volt, 900 r.p.m., $8; Otis Elevator Co., 1½-HP., 220-volt, 825 r.p.m., $7.25; General Electric, 1¾-HP., 250-volt, 1,800 r.p.m., $21; Westinghouse, 2½-HP., 220-volt, 1,700 r.p.m., $25.50; Sprague-Lundell, 3-HP., 230-volt, 1,200 r.p.m., $33; Bell Electric Co., 3-HP., 230-volt, 1,700 r.p.m., $11.50; General Electric, 3-HP., 230-volt, 1,650 r.p.m., $33; Triumph, 3-HP., 220-volt, 1,500 r.p.m., $31; Eddy, 3-HP., 220-volt, 1,200 r.p.m., $8; General Electric, 3-HP., 230-volt, 1,100 r.p.m., $40.00; Diehl, 3-HP., 220-volt, 1,625 r.p.m., $12; Westinghouse, 3½-HP., 110-volt, 1,800 r.p.m., $31; Paragon, 5-HP., 220-volt, 1,600 r.p.m., $19; Eddy, 5-HP., 220-volt, 1,100 r.p.m., $13 and $20; Eddy, 5-HP., 230-volt, 1,100 r.p.m., $19.

General Electric, 5-HP., 230-volt, 1,100 r.p.m., $40 and $41; Crocker-Wheeler, 5-HP., 230-volt, 930 r.p.m., $47 [illegible] Crocker-Wheeler 5-HP., 230-volt, 980 r.p.[m.] [illegible] 25; Thomson-Houston, 5-HP., 220-volt [illegible] r.p.m., $7.50 [illegible] General Electric, 7½-HP [illegible] volt, $15 r.p.m., $61; Eddy, 7½-HP [illegible] volt, 1,000 r.p.m., $13; Crocker-Wheeler [illegible] HP., 220-volt 875 r.p.m., $55; Otis Elev[ator] Co., (Elevator Motor), 8-HP., 220-vo[lt] [illegible] r.p.m., $20; National (Elevator Mo[tor]) [illegible] 10-HP. 220-volt, 1,200 r.p.m., $22; [illegible] 10-HP. 220-volt, 1,750 r.p.m., $21; [illegible] 10-HP., 220-volt, 900 r.p.m., $26; New [Eng]land, 10-HP. 220-volt, 1,175 r.p.m., $[illegible]; [New] England, 10-HP., 230-volt, 1,000 r.p.m., [illegible] General Electric, 10-HP., 230-volt, 650 [illegible] $85; General Electric, 10-HP., 230[-volt] [illegible] 1,250 r.p.m., $80; Crocker-Wheeler, 10-H[P.] [illegible] 220-volt, [illegible] r.p.m., $98; Triumph, 10-H[P.] [illegible] volt, 1,100 r.p.m., $64; Houston, 15-H[P.] [illegible] volt, 1,000 r.p.m., $18.50; Eddy, 15-H[P.] [illegible] volt, [illegible] r.p.m., $25; Thomson-Hou[ston] [illegible] HP., 220-volt, 1,400 r.p.m., $23.

GENERATORS.—One We[stinghouse] A. C. Generator, 180-KW., 2,200-vo[lt] [illegible] phase, 7,200 alternations, 514 r.p.m., rh[eostat] [illegible] $485; one Westinghouse A. C. Genera[tor] [illegible] same as the foregoing, $425; switchb[oard] [illegible] panels for above generators (Vermont [illegible]), equipped with 2 A. C. ammeters [illegible] switches field switches and plugs, $50 [illegible] $35; Westinghouse D. C. Generator, 7[illegible] 125-volt 600 amperes, 750 r.p.m., [illegible] and $22 Eddy Mfg. Co., 150-KW., [illegible] generator type C, 220-volt, 600 ampe[res] [illegible] r.p.m. $155; black slate switchboard [for] foregoing equipment, complete, $20.

General Electric Generator, [illegible] 8-100-900 Form D, 22 amperes, 900 [illegible] 2,080 to 2,300-volt, A. C., with transform[er] [illegible] type SQ T., Form A, 4-KW., $100; W[estinghouse] [illegible] house 50-KW., 220-volt, A. C. generato[r] with extra armature, $72; Westinghouse [illegible] KW., D. C. Exciter, 125-volt, 1,150 RPM., $[illegible]

BOILERS.—One 250-HP. Por[illegible] Boiler $380; one boiler feed pump, $[illegible]

ENGINES.—One 300-HP. Brow[n] 18 × 48-in., 108 r.p.m., 14-ft. flywhee[l] $700; one 200-HP. Slater, 18 × 36-in., 106 r.p.m., 16-ft. flywheel, $160; one 350-HP. Sla[ter] 22 × 48-in., 98 r.p.m., 16-ft. flywheel, $1[illegible]

MISCELLANEOUS.

ROOFING SLATE.—The demand shows some improvement, but prices are without change.

Quotations are named per "square" or 100 sq. ft. of roof surface in carload lots of the sizes in most general use, f. o. b. quarry station:

	Per 100 sq. ft.
Vermont, sea green	$3.50 to $4.10
Pennsylvania, Bangor Ribbon	3.50 to 4.00
Maine, Brownsville No. 1	5.00 to 7.75
Maine, Brownsville No. 2	4.50 to 6.00
No. 1 Red	10.50 to 12.00
Unfading green	4.00 to 5.50
Genuine Bangor	4.00 to 6.50
Pen Argyle	4.00 to 5.50

ROPE.—The demand is good, but prices are easier. A decline is unusual at this time of year.

Pure Manila is 8½ to 9 cts. per lb.; second grade, 7½ to 8 cts.; hardware grades, 7 to 7½ cts. per lb. Pure Sisal is 6½ cts. for the highest grades, and 6 cts. for less desirable grades. Jute rope in commercial sizes is 6 to 6½ cts. per lb.

WATERPROOFING.—The prices for carload lots f. o. b. cars New York, are as follows: Hydrex waterproofing felt, $1.25 per 100 sq. ft.; Hydrex compound "A," 26 cts. per gal.; Hydrex compound "B," 18 cts. per gallon.

Texaco waterproofing cement is $30 per ton in car lots, f. o. b. cars New York or Philadelphia.

Asphaltum for waterproofing is sold at $25 to $27 per net ton.

Glidden, graphite acid proof coating is sold at $1.25 per gal. in bbl. and ½ bbls., and $1.40 per gal. in 5-gal. cans. These prices are f. o. b. Cleveland or for delivery from warehouse, New York, Chicago, St. Louis, Boston or Atlanta.

Portland cement waterproofing by the McCormick Process is sold by the makers, McCormick Portland Cement Co., at 7 cts. per lb., delivered at the nearest railroad station, subject to the following discounts: Less than ton lots, 2%; less than five tons, 5%; less than ten tons, 5 and 2%; less than 20 tons, 5 and 5%; less than 30 tons, 5 and 7½%.

ROOFING CEMENT.—Prices are unchanged at $25 per ton for Texaco.

EXPLOSIVES.—Dynamite of the kind usually used by contractors is approximately 11 to 13 cts. per lb., f. o. b. factory, in ton lots. Blasting powder, classified as "soda" grade, is sold at $1.20 to $1.40 per keg. of 25 lbs. in lots of 10,000 lbs. The following prices prevail on Trojan in carload lots, minimum 24,000 lbs., f. o. b. Pacific Coast points: No. 1, 13½ cts.; No. 2, 10½ cts.; No. 3, 10 cts. They have a disruptive force equivalent to 60%, 40% and 30% of nitroglycerine.

Exploders, per hundred, are sold at the following prices: 4 ft., $3.60; 6 ft., $4.10; 8 ft., $4.60; 10 ft., $5.10; 12 ft., $5.60; 16 ft., $6.60. 20 ft., $7.50; 20 ft., $9.40; 30 ft., $12; 36 ft., $14.60.

Caps in lots of 10,000 are $7 to $8 per thousand.

Blasting machines for 10 holes are $12; 25 holes, $20; 50 holes, $40; 100 holes, $60.

ASBESTOS.—Asbestos building felt and sheathing in less than ton lots is 3½ cts. per lb. for the light, weighing from 6 to 30 lbs. per 100 sq. ft.; 4 cts. per lb. is charged for the heavy weighing from 45 to 56 lbs. per 100 sq. ft.

Millboard is made in standard sheets, 40 × 40 ins., and 41 × 40 ins. It varies in thickness from 1/32 to ½-in. and in weight from 2 to 27 lbs. per sheet. The net price in 100 lb. lots is 5 cts. per lb.

Transite, asbestos wood, used for fireproofing, ventilators and smoke jacks, comes in standard sheets, 36 × 48 ins., 42 × 48 ins.,

and 42 × 96 ins. The prices, f. o. b factory, Nassau, N. H., are as follows:

Thickness.	Weight.	Price.
⅛-inch	1 lb.	$0.08
3/16-inch	1½ lbs.	.12
¼-inch	2 lbs.	.16
5/16-inch	2½ lbs.	.20
⅜-inch	3 lbs.	.28
7/16-inch	3½ lbs.	.28
½-inch	5 lbs.	.32
9/16-inch	4½ lbs.	.36
⅝-inch	5 lbs.	.40
¾-inch	6 lbs.	.44
⅞-inch	7 lbs.	.48
1 -inch	8 lbs.	.52
1¼-inch	10 lbs.	.56
1½-inch	12 lbs.	.64
1¾-inch	16 lbs.	.72
2 -inch	16 lbs.	.80

PAPER.—Prices are without change from last month, as follows:

Tarred Paper:	Per roll of 108 sq. ft.
Standard, 2-ply, 40 lbs.	$0.45
Extra heavy, 2-ply, 45 lbs.	.55
Standard 3-ply, 60 lbs.	.65
Extra heavy, 3-ply, 70 lbs.	.75

Rosin Sized Sheathing:	Per roll of 500 sq. ft.
Light, 25 lbs.	$0.38
Medium, 30 lbs.	.45
Heavy, 40 lbs.	.60

LIGHTERAGE LIMITS.—The free delivery or "Lighterage Limits" in New York City are as follows: in Manhattan, from a point opposite the Fort Lee ferry, south along the Hudson River around the Battery and north along the East and Harlem Rivers to the Jerome Ave. Bridge at 155th St. In New Jersey, south from Fort Lee ferry to Bayonne City, points on the north and east shore at Staten Island, between Bridge Creek (Arlington) and Clifton, both inclusive, and including Elm Park, Eristina and Shooters Island. In Brooklyn, from 69th St., Bay Ridge, north to Port Cove, Astoria, Long Island City.

RUBBER.—The advance last month has been followed by a rapid decline, and although prices have not all dropped as low as they were earlier in the year. Up River Para fine is selling within 8 cts. of the low figure, it being quoted at $1.35 per lb. This is practically as low as it has sold since midsummer of 1909, or when the boom commenced. Up River Para Coarse can be had at $1.10, compared with $1.18 last month. Caucho Ball has dropped 10 cts., and is now quoted at $1.10.

Speculation in rubber shares is not anywhere near as rampant as it was early last month, and this fact alone probably contributes largely to the lower prices.

GLASS.

SKYLIGHT GLASS.—Prices continue without change from the last report, as follows:

Thickness, ins.	Price per sq. ft.
1/8	7 cts.
3/16	10 cts.
1/4	15 cts.

Wired skylight glass, ¼-in. thick, is 25 cts. per sq. ft.

VAULT LIGHTS.—Prices continue without change. Contractors furnishing their own molds can obtain glass at from 4 to 5 cts. per lb. Bull's eyes, 3-in. in diameter, are 3 cts. each, and square lights, 3½ × 3½, are 5 to 6 cts. each.

PLATE GLASS.—Some betterment in business is noted. The prices continue unchanged at 89% discount from list.

In the accompanying table the net price of polished plate glass is figured at this discount. These prices apply to the glass only, an extra charge being made for boxing or cutting to special sizes.

WINDOW GLASS.—The demand shows some improvement, but prices are cut to quite an extent. The general discount to jobbers is 90 and 5%, but this is sometimes shaded.

The net prices per box of 50 sq. ft., at the discount named, are as follows:

American Window Glass.

Size of Glass, Ins.	Single Thickness, Price per box, 50 sq. ft. A.	B.
6 × 8 to 10 × 15	$2.27	$2.16
11 × 44 / 12 × 13 to 14 × 20	2.37	2.27
10 × 26 to 16 × 24	2.55	2.40
18 × 22 / 20 × 20 to 20 × 30	2.70	2.50
15 × 36 to 24 × 36	2.80	2.55
26 × 28 to 24 × 36	2.95	2.65
26 × 34 / 28 × 32 / 30 × 30 to 30 × 40	3.27	2.85
32 × 38 / 34 × 36 to 30 × 50	3.80	3.25
30 × 52 to 30 × 54	4.05	3.55

NET PRICES OF POLISHED PLATE GLASS IN DOLLARS.

Length, feet.	Width, Feet 1	1.5	2	2.5	3	3.5	4	4.5	5	6	7	8	9	10
1	$0.24	$0.38	$0.50	$0.66	$0.86	$1.04	$1.18	$1.38	$1.52	$2.40	$2.86	$3.25	$3.75	$4.17
1.5	....	.59	.86	1.10	1.42	2.10	2.40	2.76	3.08	3.75	4.38	5.00	5.70	6.90
2	....	....	1.18	1.59	2.40	2.86	3.25	3.75	4.17	5.00	5.90	6.85	7.85	8.90
2.5	....	....	....	2.55	3.08	3.68	4.20	4.70	5.30	6.40	7.60	8.90	10.10	11.10
3	....	....	....	....	3.75	4.40	5.00	5.75	6.90	7.90	9.40	10.70	12.25	13.60
3.5	....	....	....	....	....	5.20	5.90	6.75	7.60	9.40	11.10	12.70	14.40	15.90
4	....	....	....	....	....	....	6.86	7.90	8.90	10.70	12.70	14.50	16.40	18.20
4.5	....	....	....	....	....	....	....	9.10	10.10	12.25	14.40	16.40	18.40	20.50
5	....	....	....	....	....	....	....	....	11.10	13.60	15.90	18.20	20.50	27.00
6	....	....	....	....	....	....	....	....	....	18.20	19.00	21.80	25.00	27.80
7	....	....	....	....	....	....	....	....	....	....	22.20	26.00	29.40	32.50
8	....	....	....	....	....	....	....	....	....	....	....	29.70	33.50	37.30
9	....	....	....	....	....	....	....	....	....	....	....	....	38.00	42.00
10	....	....	....	....	....	....	....	....	....	....	....	....	....	47.50
11	4.60	7.20	9.80	12.50	15.00	17.50	20.00	22.60	26.00	30.60	36.20	41.20	47.20	65.00
12	5.00	7.90	10.70	13.60	16.40	19.00	21.80	25.00	28.00	33.50	39.30	44.80	63.50	70.80
13	5.50	8.70	11.80	14.80	17.75	20.80	24.10	27.20	30.10	36.40	43.50	61.50	69.00	112.50
14	5.90	9 40	12.70	15.90	19.00	22.25	26.00	20.20	32.50	39.40	46.70	66.00	109.00	146.30
15	....	....	....	....	....	24.40	28.00	31.30	34.80	42.00	61.80	70.80	141.00	163.50
16	....	....	....	....	....	33.00	37.80	42.50	47.20	55.50	66.00	109.00	157.00	202.00
17	....	....	....	....	....	35.00	40.00	45.30	50.00	60.00	70.30	143.00	192.00	294.00
18	....	....	....	....	....	38.00	42 50	47.80	53.20	63.50	109.00	157.00	280.00	311.00

INDUSTRIAL NOTES.

(Continued from page 168.)

SOME INTERESTING testimony regarding the use of "leadite" for making joints in cast-iron water pipe has recently been received, by The Leadite Co., Land Title Bldg., Philadelphia, from the Pennsylvania Water Co., Wilkinsburg, Pa. This company states it has been using "leadite" for nearly five years and now has about twelve miles of main in which this material has been used. It has been used on pipe up to 30 ins. in diameter and on other pipes under pressure of 175 lbs. per sq. in. Last fall a line of 12-in., 10-in. and 8-in. pipe, about five miles long, was laid using this material in which every joint was tested before being covered and not a single leak was found.

THE LAYING OF A NATURAL gas pipe line from the Caddo field, near Shreveport, La., to Houston, and the installation of a distributing system in this city is a project that is being considered by Louis Denning, President of the Bush-Everett Co., of St. Louis, Mo., and G. L. Craig, of Pittsburg, Pa. These two men recently made a thorough investigation of the situation at Houston with the view of making formal application in due time for a franchise over the streets of the city for the proposed distributing system. The proposed pipe line will be about 200 miles long and along its route are a number of thriving towns and several large lumber mills and other industries. The promoters of the project have made no definite announcement as to their conclusions and plans but it is said that the proposition is regarded as attractive and will probably be carried to fulfillment in the near future.

IDLE FREIGHT CARS have increased in number since Feb. 15th approximately 33,000. During the fortnight ending March 15 the increase was 17,419. The net surplus is now 207,527. The present surplus is four times that of a year ago and even allowing for the additional equipment and service. Since then the reports indicate there are twice as many cars idle.

1911.	Net Surplus.
March 15	207,527
March 1	189,842
Feb. 15	173,667
Feb. 1	155,068
Jan. 18	114,820
Jan. 4	106,924
1910.	
Dec. 21	51,413
Dec. 7	44,014
Nov. 23	28,393
Nov. 9	13,581
Oct. 26	7,235
Oct. 12	13,316
Sept. 28	24,528
Sept. 14	47,076
August 31	50,729
August 17	73,679
August 3	102,781
July 20	133,301
July 6	142,865
June 22	122,915

REGULATING WAGES IN OTHER STATES.—One would think that the law requiring contractors for State and municipal work to pay the "prevailing rate of wages" for labor was a sufficient interference with the right of contract when the work is done within the State and under the jurisdiction of the laws; but the Granite Workers' Union has asked a court virtually to compel the contractor for the construction of the new municipal building to pay the union wages of New York to workmen who are cutting stone for that structure in the State of Maine. What was directly asked for was an injunction to prevent the city from making any further payment on the contract on the ground that the contracting company was violating the labor law because it had sublet the stonecutting to a granite works in Maine which paid $3 a day, while the union rate here for the same kind of work is $4.50 a day. The injunction has been denied on what would seem to be the sufficient ground that acts of the State Legislature "can have no extra-territorial effect, and, of course, should not be presumed to apply to any other conditions than exist within the State."

The real purpose could hardly have been to force an increase of wages for granite cutters in Maine. The lawyer for the union contended that either the men should be paid $4.50 a day or else the work should be performed here "at the prevailing rate." That probably reveals the real purpose of the suit. An absurd law was passed some years ago requiring all stone used in municipal building to be dressed here, which added greatly to the cost on account not only of higher wages, but the greater cost of transporting the rough stone and providing yards for its treatment within the city limits. That law has been declared to be unconstitutional. This suit seems to have been an attempt to accomplish the same object by indirection in applying another law which does not really apply. The attempt would probably have been futile if it had been successful, for it would still have been the cheaper to have the stone cut where it is taken from the quarry and transported afterwards, even though the same wages had been paid. Labor unions would win more favor and make better progress if they would abandon coercive efforts the unreasonableness of which is so obvious.

TRADE PUBLICATIONS.

STEAM PUMPS.—American Steam Pump Co., Battle Creek, Mich. Paper; 3¼ × 6 ins.; pp. 8; illustrated.

The features of the Marsh simplex pump are described, and there is a comparison of the features of simplex and duplex pumps.

SIGNAL RELAYS.—Hall Signal Co., New York and Chicago. Paper, 5½ × 8½ ins.; pp. 12; illustrated.

This pamphlet describes an improved form of relay for electric signal equipment, which is designed to give a contact of permanent efficiency. The construction is described in detail.

FLUSH TANKS.—Pacific Flush Tank Co., Chicago, Ill. Paper; 6 × 9 ins.; pp. 24; illustrated.

Various types of flush tanks, well known as the products of the company named, are described and illustrated in this pamphlet, including double and triple alternating and two-way discharge tanks.

CONVEYING MACHINERY.—Conveying Machinery Co., 50 Church St., New York. Paper; 8 × 11 ins.; pp. 31; illustrated.

The conveyors illustrated and tabulated here are largely for coaling outfits, both from coal banks to barges and from wagons to building storages.

METAL FORMS FOR CONCRETE.—Hotchkiss Lock Metal Form Co., Binghamton, N. Y. Two catalogs. Paper; 6 × 9 ins.; pp. 16 and 16; illustrated.

The Hotchkiss type of form consists of structural steel shapes, such as channels and plates so solid and grooved as to permit interlocking, and arranged for use in sidewalk and curb construction. The two catalogs above show details of their construction and photographs of their uses in many locations.

WHITE PORTLAND CEMENT.—The Atlas Portland Cement Co., 30 Broad St., New York. Paper; 6½ × 9 ins.

This catalog contains analyses of the White Portland cement manufactured by the Atlas Co., and recipes for the mixtures of the cement with sand to be used in various kinds of decorative work.

CRUSHING, GRINDING AND SCREENING MACHINERY.—Kent Mill Co., 170 Broadway, New York. Bulletins Nos. 34, 36 and 37. Stiff paper; 8 × 10 ins.; pp. 18; illustrated.

This gives photographic details of crushers of the so-called Kent type, and of screens of the vibratory type.

GASOLINE LOCOMOTIVES. — Milwaukee Locomotive Mfg. Co., Milwaukee, Wis. Paper; 7 × 10 ins.; pp. 24; illustrated.

These locomotives are intended specially for use at industrial plants, factories, mines, etc., and on contract or other construction work. Lists of dimensions, etc., are given for mine engines of different styles and sizes.

GAGE AND TEMPLATE FOR STREET FOUNDATIONS.—P. Roughen, Fond du Lac, Wis. Paper; 5¼ × 3 ins.; pp. 12; illustrated.

The template is adjustable to the required form of the crown of the street, and its ends are carried by trucks which ride on the finished gutters. In this way the concrete is given the proper shape without the use of the usual stakes. Testimonials refer to the use of the device in different cities.

RIVET HEATING FURNACES.—Rockwell Furnace Co., 26 Cortlandt St., New York City. Paper; 9 × 12 ins.; pp. 7; illustrated; Bulletin 27.

Various types of furnaces, both portable and stationary, for heating rivets, bolts, plates and for forging and welding are described in this bulletin. Both gas and oil fuel types are shown.

DERRICKS AND DERRICK FITTINGS.—The Terry & Tench Co., Inc., 131st St. and Lexington Ave., New York. Paper; 9¼ × 12¼ ins.; pp. 52; illustrated.

This should be a very useful catalog to all contractors and engineers. In addition to a number of photographs of derrick equipment in coal operation, it contains many detail tables with sizes and capacities of all manner of derricks and other hoisting devices.

STREET CLEANING AND REPAIRING MACHINERY.—Briggs Labor Saving Specialty Co., Waterloo, Iowa. Paper; 15½ × 8½ ins.; pp. 16; illustrated.

This catalog is made in rather an unwieldy size to handle, but contains some interesting illustrations of municipal machinery for street sweeping, carrying asphalt, spreading asphalt and concrete and motor dump wagons. Street sweepers are made by this firm both motor driven and horse-drawn with gasoline operated brooms. The automobile features are explained in full and will be found interesting as a more or less novel application of self-propelled vehicles. The asphalt wagons are also driven by gasoline motors.

DIRECT-CURRENT MACHINERY. — Fairbanks, Morse & Co., Chicago, Ill. Paper; 6 × 9 ins.; pp. 24; illustrated.

Under the title, "Electrical Catechism on Direct-Current Apparatus," this company has given definitions of electrical terms and has described the construction and use of different machines. The matter appears in the form of a series of questions and answers. It is stated that the matter was originally prepared for the use of salesmen, but, owing to a demand for it from others, it has been put into this form for general distribution.

STEAM TURBINES.—De Laval Steam Turbine Co., Trenton, N. J. Catalog A. Paper; 6 × 9 ins.; pp. 120; illustrated.

Four classes of De Laval turbines are mentioned in this catalog. In the first two classes, the steam from the nozzles impinges against a single row of blades or buckets carried by a single wheel. In the first class, reduction gearing is used between the bucket wheel and the driven shaft, while in the second class no reducing gear is used. The third class is distinguished from the first two in that two rows of moving blades are used, separated by one row of stationary guide blades. Both rows of moving blades are mounted on a single wheel or disk. In all these first three types the steam is expanded completely to the terminal pressure in a single set of nozzles before impinging upon the buckets. In the fourth class, steam is expanded through two or more successive sets of nozzles with the corresponding pressure steps, and the velocity in the steam from each set of nozzles is expended upon the corresponding row of moving blades. This multi-stage type is not described at length.

De Laval turbines of the single-stage geared type are made in three different sizes ranging from 7 to 700 HP. The steam consumption for a 450-HP. geared turbine, receiving saturated steam at 160 lbs. gage, and exhausting into a 28-in. vacuum, is given as from 14.4 to 15.7 lbs. per HP.-hr. at loads varying from ½ full load to 25% overload. A number of curves are given showing the steam consumption at various loads. The details of construction are well shown by numerous sectional views, and several pages of text are devoted to an explanation of the turbines' operation.

These turbines are used without reduction gearing only on work where high rotative speed is not a serious objection; for example, in driving pumps, blowers, centrifugal air compressors and small alternators.

Low-pressure and exhaust-steam impulse turbines are described, which operate with 28-in. vacuum. It is stated that the De Laval turbine is easily arranged for operation as a mixed-flow turbine.

A few pages at the end of the catalog are devoted to a description of multi-stage centrifugal air compressors and centrifugal pumps.

TRAMRAILS.—Rockwell Furnace Co., 26 Cortlandt St., New York City. Paper; 9 × 12 ins.; pp. 7; illustrated; Bulletin T.

The Moyer tramrail for use in handling material in foundries and manufacturing establishments is here described. The contents of the bulletin are reprinted from a paper presented before the American Foundrymen's Association in June, 1910, by Mr. A. W. Moyer.

BOILER PLANT ECONOMY.—Richard D. Kimball Co., 437 Fifth Ave., New York. Paper; 5½ × 8½ ins.; pp. 23; illustrated.

The testing and inspection service of this concern is described as applied for advising a manufacturer of the condition of his power plant and for keeping his machinery and organization keyed up to its most economical point.

TITANIUM IN STEEL.—Titanium Alloy Mfg. Co., 1225 Oliver Building, Pittsburg, Pa. Paper; 4¼ × 8½ ins.; pp. 44; illustrated.

Interesting information is given as to the chemical function of titanium in steel, and also as to the special properties of titanium alloy steel. There are particulars also of the use and tests of such steel for rails, crucible steel, etc.

CONCRETE PILE.—MacArthur Pile & Foundation Co., 11 Pine St., New York. Paper; 6 × 9 ins.; pp. 61; illustrated.

The so-called "pedestal" pile is formed by first driving a core form and then withdrawing it some few feet from the bottom. The concrete is poured into this bottom section and rammed out into a bulb shape. The form is then further withdrawn and the entire smaller cylinder above the bulb filled with concrete. This enlarged bottom, it is claimed, gives a much greater and better surface and hence an increased efficiency to the pile.

CONCRETE DEPOSITING.—The Concrete Appliances Co., William B. Hough Co., Agents, 1336 Monadnock Bldg., Chicago, Ill. Paper; 6× 9 ins.; pp. 32; illustrated.

The system described in this catalog has recently received considerable publicity in technical literature. It comprises one or a number of central towers, from which pipes or troughs lead all over the work on which concrete is to be laid. The concrete is mixed at the bottom of the tower, hoisted to its top and then dumped into these various pipes.

TRACTION EXCAVATOR AND CRANE.—The Avery Co., Peoria, Ill. Paper; 9 × 8 ins.; pp. 12; illustrated.

The traction engine has coupled to it a truck carrying an A-frame, boom and hoisting engine. As an excavator it is of the drag-line type, the scraper bucket being handled by a hoisting line from the boom and a drag line leading directly to the engine. The machine is shown at work in excavating drainage canals, grading streets, building levees and stripping coal beds.

MOTOR TRUCKS AND TRACTORS.—The Avery Co., Peoria, Ill. Paper; 9 × 8 ins.; two pamphlets; 9 × 8 ins.; pp. 32 and 48; both illustrated.

The motor trucks are operated by gasoline engines of the fan-cylinder type and are fitted with bodies of various types according to the loads to be handled, including dump bodies for such material as coal, etc. A drum and cable may be attached for loading and unloading heavy freight. The tractor is a combination motor farm wagon and power machine for carrying loads and for driving or hauling farm machinery. Special wheels are used with wood-plug tires and extension rims, for working on soft or rough ground. The machines have been used also to haul road graders, road rollers, wagons, etc.

PORTABLE WALLS AND PARTITIONS.—The Illinois Copeland Portable Wall Co., 1604 Clybourn Ave., Chicago. Paper; 5 × 7½ ins.; pp. 11; illustrated.

The walls are of reinforced concrete, 1¼ ins. thick, in sections 2 ft. wide and of desired height. They are faced with decorative tile or glass. The sections are made complete at the factory and put in place like wainscoting. They have been used for residences, stores, hospitals, bathrooms, etc. The same system can be used for flooring.

ELECTRIC FURNACES.—Th[illegible] tro-Metallurgique, Ugin[illegible] France. Procédés Paul [illegible] Leavitt & Co., 30 Church [illegible] City. Paper; 5½ × 8[illegible] illustrations.

Under the title, "Notice [illegible] Metallic Alloys Manufactured [illegible] Furnace," are reviews of the [illegible] use of such alloys as ferro[illegible] manganese-aluminum, ferro-[illegible] silico-calcium-aluminum, [illegible] ferro-chrome, ferro-tungsten, [illegible] denum, ferro-vanadium, ferro-[illegible] direct reference is made to the concern publishing the bo[illegible]

STOVES FOR SAND DRYING.—[illegible] ers & Co., Pittsburg, Pa. Paper; 8 × 10½ ins.; pp. 39; [illegible]ted.

The "Steel City sand dryer" [illegible] of a cylindrical stove surrounded by [illegible] conical hopper or skirting into which [illegible] sand is shoveled. The stove is fired [illegible] coal, through small holes at the bo[illegible] of the hopper. For more rapid drying, [illegible]t-iron grating is supplied which fits over [illegible] completely encloses that part of the [illegible] which projects into the hopper. This gr[illegible] maintains a small air space betw[illegible] wet sand and the surface of the sto[illegible] When dry, the sand runs through the gr[illegible] and out through openings at the lower [illegible]

For other Proposal Advertisements see pages 57, 58, 60, 61, 64 of Advertisements and Construction News page 174.

SEWER SYSTEMS.

Freeport, Ill.

The Board of Local Improvements of the City of Freeport, Illinois, will receive sealed proposals for the construction of two Sanitary Sewer Systems up to 2 o'clock P. M., April 14, 1911. The West Freeport System has 27,527 lin. ft. of vitrified sewer pipe ranging in sizes from 8 to 12 inches, 48 manholes, etc. Estimate, $32,757.56. The East Freeport System has 9,814 lin. ft. of vitrified sewer pipe ranging in sizes from 8 to 12 inches, 21 manholes, and pumping station with equipment, etc. Estimate, $15,164.15. All bids must be accompanied by a certified check for 10% of the gross amount of the bid. Plans and specifications on file at the office of J. A. R. Daniels, City Engineer.

CAST-IRON PIPE, ETC.

Attleborough, Mass., April 6, 1911.

Sealed proposals will be received at the office of the Committee on Sewerage, Attleborough, Massachusetts, until 3.00 P. M. of Monday, April 17, 1911, for furnishing cast-iron pipe and special castings, and at that place and time will be publicly opened and read.

Specifications and Form of Proposal may be obtained at the office of the Engineer, South Framingham, Massachusetts.

All proposals must be made on the blank forms furnished by the Committee, and must give the price proposed both in words and figures, be signed by the bidder with full name and business address, and endorsed "Proposal for Furnishing Cast-iron Pipe."

Each proposal must be accompanied by a certified check for 5 per cent. of the total amount of the bid, made payable to the Treasurer of the Town of Attleborough. This check must not be enclosed in the sealed envelope containing the proposal, but delivered to the Chairman of the Committee on Sewerage, who will give a proper voucher for the deposit.

The deposits of unsuccessful bidders will be returned as soon as the contract is signed.

Security for the faithful performance of the contract under the specifications will be required in a sum not less than 20 per cent. of the amount of the contract. This must be in the form of a bond of some surety company satisfactory to the said Committee.

The party to whom this Contract is awarded will be required to be present at the office of the Committee with the bond duly executed within six days (Sunday excepted) after the date of mailing to him a notice from the Committee of the acceptance of his proposal, and there sign the contract in duplicate for doing the work.

In case of failure so to do, the bidder will be considered as having abandoned the contract, and the certified check accompanying his proposal will be forfeited to the Town of Attleborough.

The approximate quantities of cast-iron pipe and special castings required are as follows:

30-inch	24-inch	20-inch	18-inch
396 feet	4,860 feet	11,388 feet	1,500 feet
47.19 tons	415.12 tons	763.95 tons	87.5 tons
16-inch	12-inch	10-inch	8-inch
552 feet	1,368 feet	648 feet	1,956 feet
27.95 tons	46.17 tons	17.55 tons	38.71 tons

186 pieces of special castings ranging in size from a 6-inch on 8-inch Y branch to a 24-inch on 24-inch tee branch—in all about 59.06 tons.

The Committee reserves the right to reject any and all bids that may be offered, and to accept any bid that may be offered.

CHARLES S. HOLDEN, M. D.,
Chairman.

J. J. VAN VALKENBURGH,
Engineer.

COURT HOUSE.

Auburn, Ind.

Notice of letting contract for a new County Court House, including Plumbing and Electric Wiring, for DeKalb County, to be erected at Auburn, Indiana.

Sealed proposals, accompanied by a bond and affidavit, as required by the Law, will be received at the Office of the Auditor of DeKalb County, Auburn, Indiana, at ten o'clock, on Thursday, May 4, 1911, and opened at said time, and a contract or contracts let to the best and lowest bidder, that in the opinion of the Board of Commissioners, County Attorney, and Architects, will be to the best interest of the County, for the furnishing of all material and labor required for the razing of the Old Court House building and for the erection and completion of a new County Court House building, and the Plumbing and Electric Wiring of said new Court House, according to plans and specifications prepared by Mahurin & Mahurin, Architects, Fort Wayne, Indiana, and now on file in the Auditor's Office of said County.

Each Contractor shall accompany his bid with a certified check as follows:

For General Contract..........$1,000.00
For Plumbing Contract.......... 200.00
For Electric Wiring Contract... 200.00

The certified check shall be made payable to Alpheus W. Madden, County Auditor, as a guarantee, that if the contract is awarded to him, he will enter into a contract approved by the County Attorney, and accepted by the Board for the completion of the work so bid for.

Each bid shall be accompanied by a good and sufficient bond, equal to the amount of the bid, made payable to the State of Indiana, which bond shall guarantee the faithful performance of the contract and execution of the work so bid for.

No bond but Surety Company bond legally doing business in Indiana.

The successful Contractor shall within one day after the award execute with the Board a contract approved by the County Attorney, a copy of which is now on file.

All bids, bond and affidavit shall be made out upon blanks furnished by the Auditor, in order that they may be considered as regular.

All amounts shall be in ink, both in writing and figures.

The Board reserves the right to reject any or all bids.

By order of the Board of Commissioners, the County of DeKalb, this 21st day of March, 1911.

ALPHEUS W. MADDEN,
County Auditor.

Copies of the Plans and Specifications for the General Contract, Plumbing and Electric Wiring and for the separate branches of the building may be had by addressing the Architects.

MANHOLE COLLARS, ETC.

Attleborough, Mass., April 6, 1911.

Sealed proposals will be received at the office of the Committee on Sewerage for the Town of Attleborough, Mass., until 3.00 P. M. of the 17th day of April, 1911, for furnishing manhole collars and covers and at that place and time will be publicly opened and read.

The number of covers required to be furnished under this contract is one hundred and ten and is the number on which a comparison of the bids will be based.

The castings must be similar in construction to those purchased last year by the town under its own plans and specifications.

Specifications and plans may be obtained at the office of the Engineer, South Framingham, Massachusetts.

CHARLES S. HOLDEN, M. D.,
Chairman.

J. J. VAN VALKENBURGH,
Engineer.

PAVING.

Seneca Falls, N. Y.

Sealed proposals will be received by John M. Guion, Clerk of the Board of Trustees of the Village of Seneca Falls, N. Y., at his office in said Village, until two o'clock P. M., Thursday, May 4th, 1911, for paving State and Bayard Streets. The work for which proposals are invited consists of the following approximate quantities:

12,500 cubic yards of excavation.
17,000 lineal feet of curbing.
15,000 lineal feet of 3" drain tile.
5,000 lineal feet of vitrified pipe.
42 Catch Basins.
25,000 square yards of brick or macadam pavement.

Specifications and blank forms of proposals can be obtained upon application to John M. Guin, Village Clerk, or to J. W. Brennan, Village Engineer. Plans may be seen at the Engineer's Office, Room 8, Schnirel Building, Geneva, N. Y. The right is reserved to reject any or all bids.

REPAIRING RESERVOIR.

Warwick, N. Y.

Sealed proposals will be received by the Board of Water Commissioners of the Village of Warwick, N. Y., [illegible] the office of the Clerk of said Village until noon of April 21st, 1911, for the repairing and the rebuilding of a storage reservoir for said village according to the plans and specifications on file with said clerk.

Upon application the clerk will furnish notice to contractors, specifications and forms upon which to make bids, and all further information required.

Dated March 28th, 1911.

C. S. LAZEAR, Clerk.
Warwick, N. Y.

Situations Open
(Or Vacant)

OPPORTUNITY for draftsman with experience on reinforced concrete and mechanical work to join general contracting concern with large municipal contracts; investment of $5,000 necessary with guarantee for investor. Address "Z. C. 14," Engineering News, New York. 14-1t

WANTED—Two competent checkers on structural steel details for buildings; only experienced men need apply. J. V. B. RAPP, 507 Fifth Ave., New York. 14-1t

WANTED—A thorough experienced structural and ornamental iron estimator for Chicago. Address "D. C. 14," Engineering News, New York. 14-1t

WANTED—An experienced construction superintendent for about 100 miles of transmission line work and seven sub-stations in the vicinity of Raleigh, North Carolina. Applicant must be experienced man. Please apply in writing to the PHOENIX CONSTRUCTION COMPANY, Raleigh, North Carolina, giving in detail education, past experience, age and salary required. 14-2t

For Sale

PLANT FOR SALE
NORTHERN NEW YORK.

10 × 18 Reliance Crusher with 30 HP. Ajax engine and boiler, and elevator and screens, all in good condition.
10 × 15 Blake Crusher with 25 HP. Ames engine, horizontal boiler and conveyor belt.
1 Ransome Hand Concrete Mixer with carts. Never been used.
Address E. H. WAENTIG, 90 West St., New York. 14-1t

FOR SALE.

Young Transit

good working order. $125.00. Address "C. C. 14," Engineering News, New York. 14-1t

FOR SALE.

Grab Bucket

1—Brown Hoisting Machine Co., 40 cu. ft. two-line Grab Bucket; weight, 5,200 lbs. Used only short time. Price right.
H. S. KERBAUGH, INC., Contractor
922 Arcade Bldg., Philadelphia, Pa.
14-1t